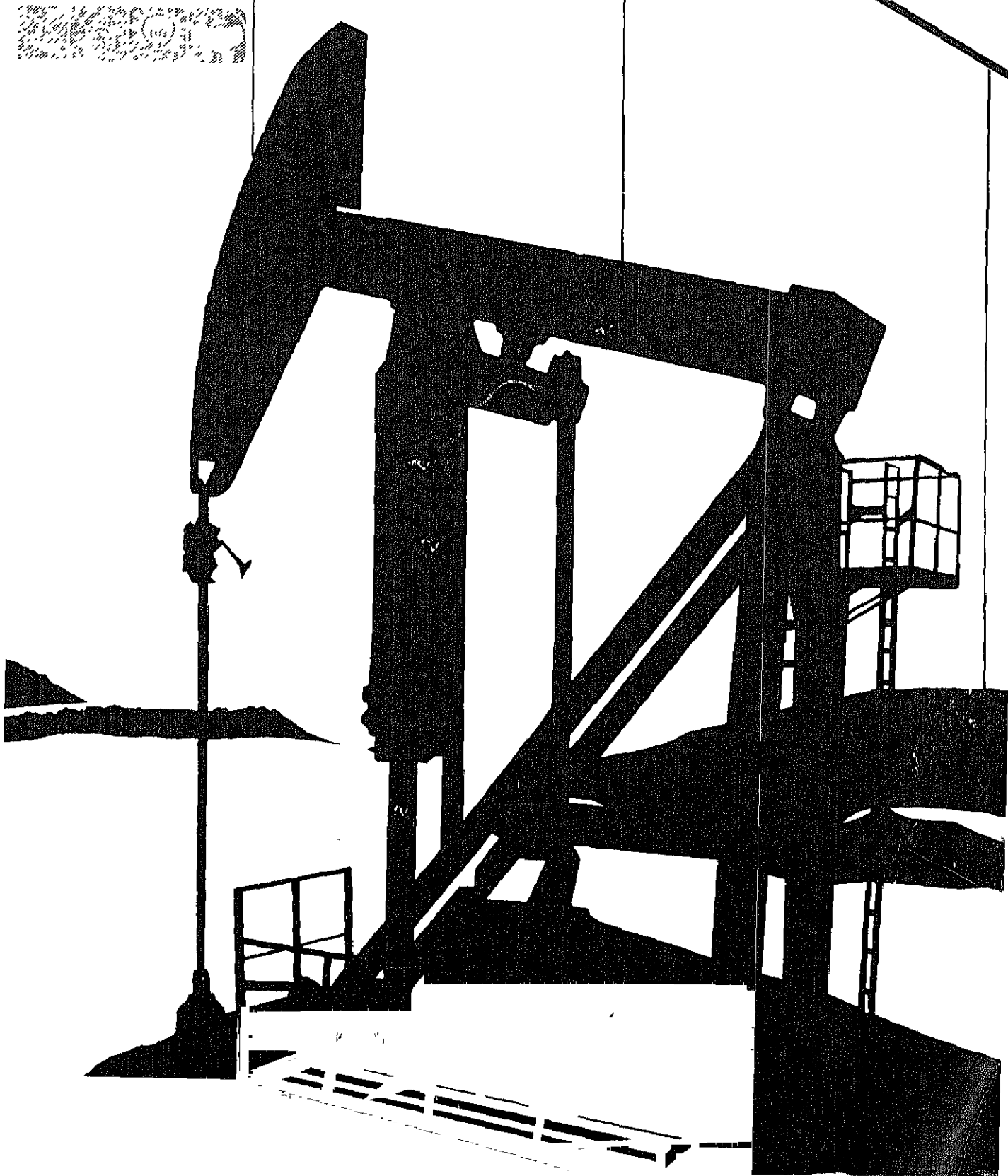


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# Petroleum Supply Monthly

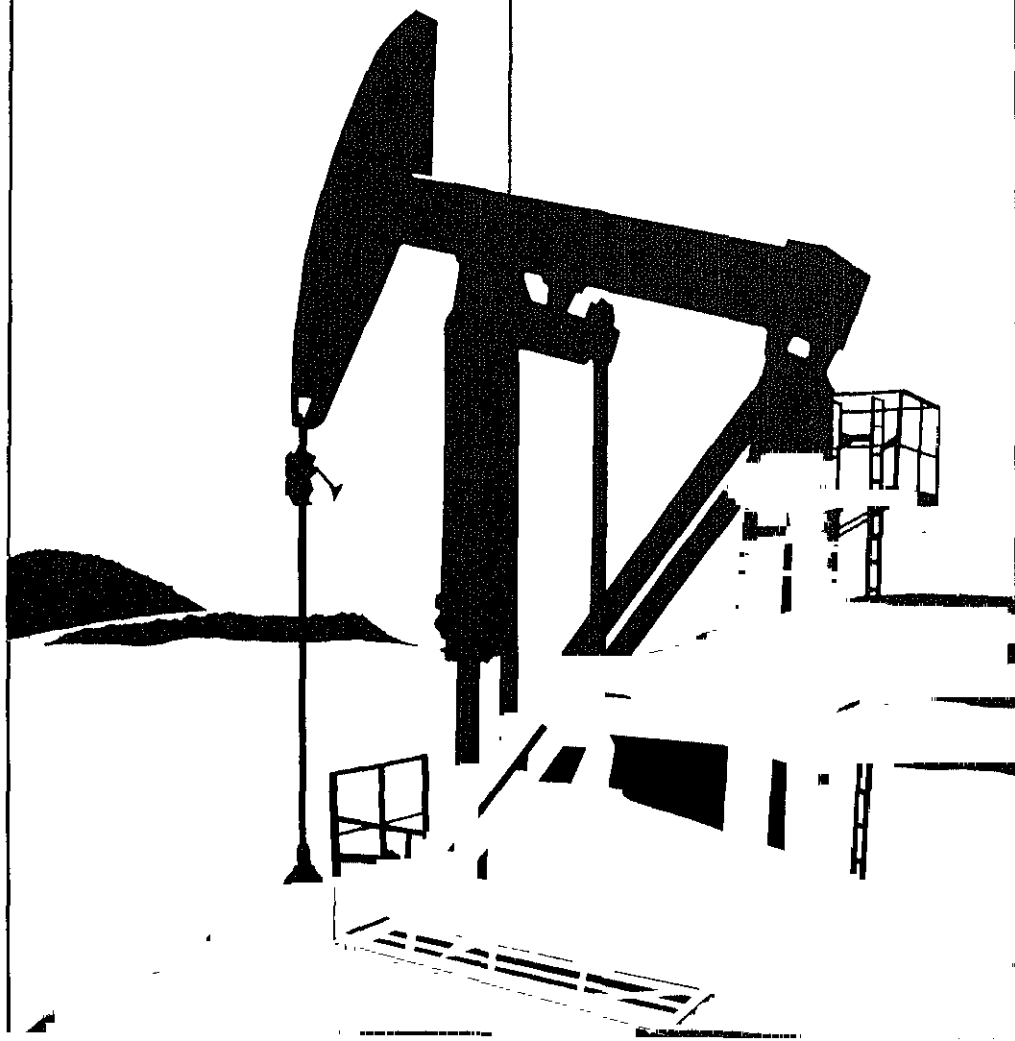


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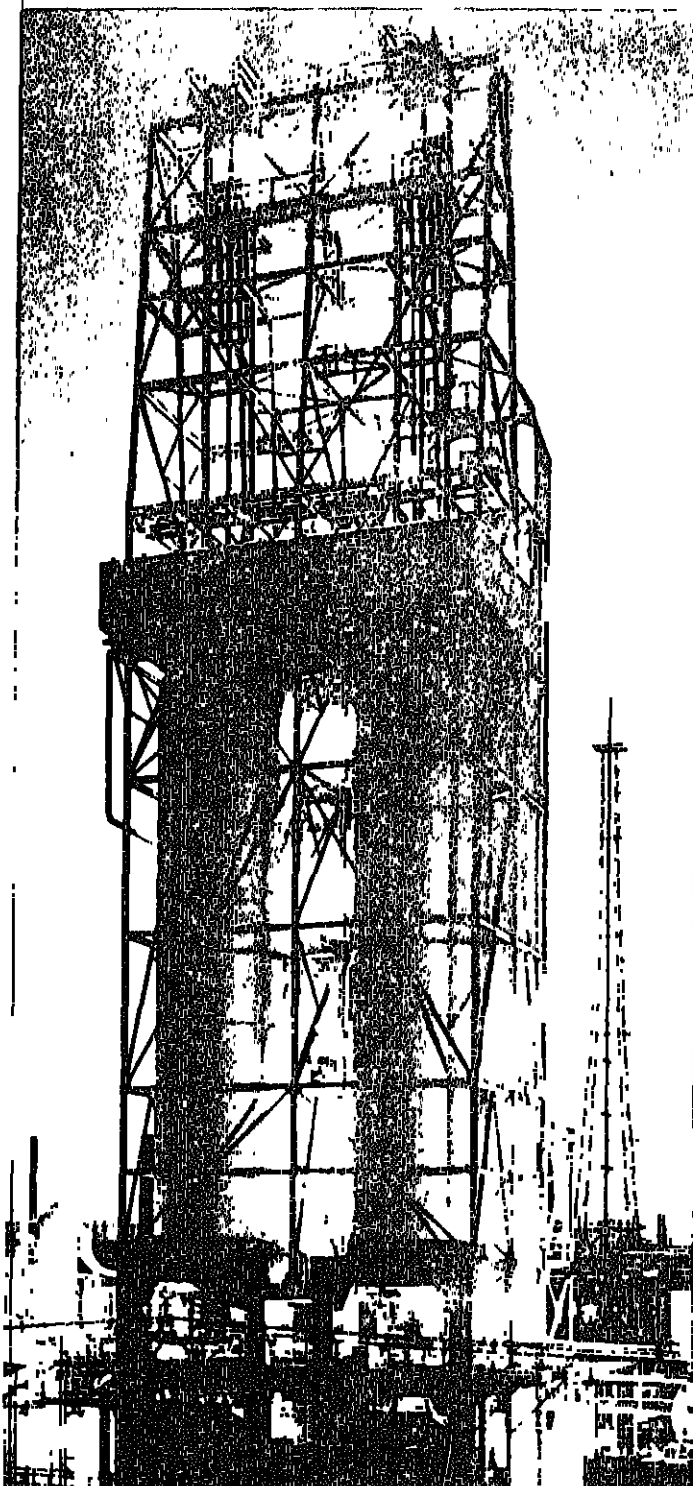




# Contents

## This Month in the PSM

This issue of the Petroleum Supply Monthly features an article concerning petroleum industry trends and outlook. *U.S. Petroleum Refinery Trends and Outlook* can be found on page 5.



## Petroleum Focus

	Page
Petroleum Supply Summary.....	3
U.S. Petroleum Refinery Trends and Outlook. . .	5

## Summary Statistics—April 1983

Crude Oil and Petroleum Products Overview. . .	10
Crude Oil Supply and Disposition . . . . .	14
Finished Motor Gasoline Supply and Disposition . . . . .	16
Distillate Fuel Oil Supply and Disposition . . . . .	18
Residual Fuel Oil Supply and Disposition . . . . .	20
Liquefied Petroleum Gases Supply and Disposition . . . . .	22
Other Petroleum Products Supply and Disposition . . . . .	24
Imports of Crude Oil and Petroleum Products from OPEC Sources . . . . .	25
Imports of Crude Oil and Petroleum Products from Non-OPEC Sources . . . . .	26
Sources. . . . .	28

## Detailed Statistics—April 1983

### National Statistics

1. U.S. Petroleum Balance. . . . .	31
2. Supply and Disposition of Crude Oil and Petroleum Products. . . . .	32
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products. . . . .	33
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products. . . . .	34
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products . . . . .	35

### Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I. . . . .	36
7. PAD District II . . . . .	37
8. PAD District III . . . . .	38
9. PAD District IV . . . . .	39
10. PAD District V. . . . .	40

### Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, February 1983. . . . .	41
--	----

### Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts . . . . .	42
---	----

### Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products. . . . .	43
14. Refinery Production of Petroleum Products . . . . .	44
15. Percent Refinery Yield of Petroleum Products . . . . .	45

# Contents (Continued)

	Page
<b>Imports and Exports of Crude Oil and Petroleum Products</b>	
16. Imports by PAD District .....	46
17. Imports by Source and PAD District .....	47
18. Exports by PAD District .....	51
19. Exports by Destination .....	52
<b>Stocks</b>	
20. Stocks of Crude Oil and Petroleum Products by PAD District .....	54
<b>Transportation of Crude Oil and Petroleum Products Between PAD Districts</b>	
21. Movements by Pipeline, Tanker and Barge .....	59
22. Movements by Pipeline .....	60
23. Movements by Tanker and Barge .....	60
24. Net Movements by Pipeline, Tanker, and Barge .....	61
<b>Heavy Fuel Oils by Sulfur Content</b>	
25. Production of Residual Fuel Oil .....	62
26. Stocks of Residual Fuel Oil .....	62
27. Movements by Tanker and Barge .....	62
28. Imports of Residual Fuel Oil by Country of Origin .....	63
29. Imports of Residual Fuel Oil by State of Entry .....	64

## Glossary

Definitions of Petroleum Products and Other Terms .....	G1
Bureau of Mines Petroleum Refining Districts and PAD Districts .....	G7

## Explanatory Notes

1. Data Collection Methodology .....	EN1
1.1 Weekly Petroleum Supply Reporting System (WPSRS) .....	EN1
1.2 Monthly Petroleum Supply Reporting System (MPSRS) .....	EN2
1.3 Census Import (IM-145) and Export (EM-522 and EM 594) Data .....	EN4
2. Supply .....	EN5
3. Domestic Crude Oil Production .....	EN5
4. Disposition .....	EN6
5. Stocks .....	EN6
6. Average Stock Levels .....	EN6
7. Movements .....	EN7
8. Preliminary Monthly Statistics .....	EN7
9. Notes on Tables .....	EN7

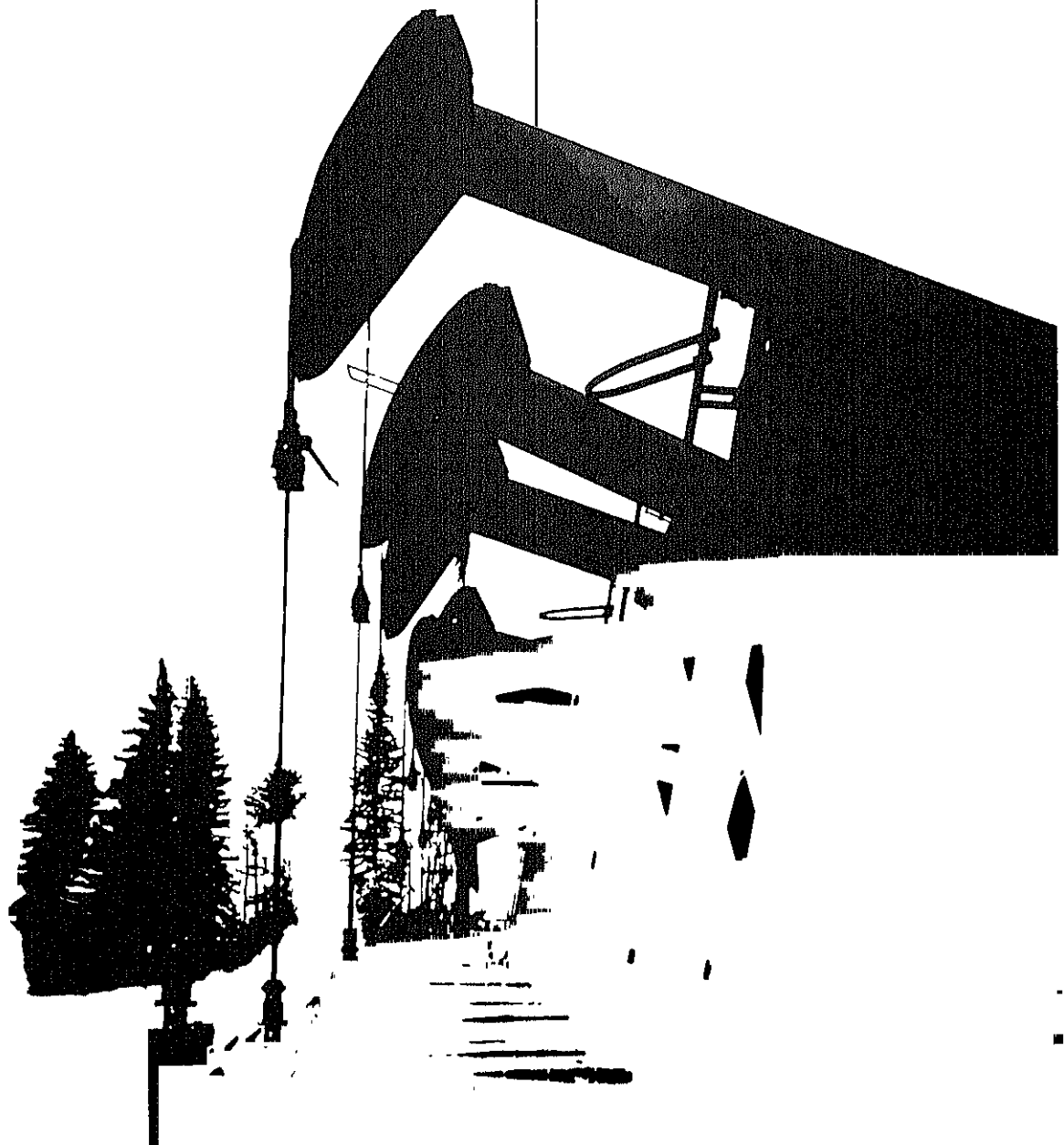
## Maps

PAD Districts .....	G8
Bureau of Mines Refinery Districts .....	G8
District Map, Oil and Gas Division, Railroad Commission of Texas .....	G9

## Figures

	Page
Petroleum Overview .....	12
Petroleum Products Supplied .....	12
Crude Oil Supply and Disposition .....	13
Crude Oil Ending Stocks .....	13
Motor Gasoline Supply and Disposition .....	17
Motor Gasoline Ending Stocks .....	17
Distillate Fuel Oil Supply and Disposition .....	19
Distillate Fuel Oil Ending Stocks .....	19
Residual Fuel Oil Supply and Disposition .....	21
Residual Fuel Oil Ending Stocks .....	21
Liquefied Petroleum Gases Supply and Disposition .....	23
Liquefied Petroleum Gases Ending Stocks .....	23
Crude Oil and Petroleum Product Imports .....	27

# Petroleum Focus





# Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	May			Cumulative January Through May		
	1983	1982	% Change	1983	1982	% Change
Total Product Supplied	14.7	14.8	- 0.7	14.9	15.6	- 4.7
Motor Gasoline	6.7	6.7	1.1	6.4	6.4	- 0.2
Distillate Fuel Oil	2.3	2.4	- 4.3	2.7	3.0	- 9.2
Residual Fuel Oil	1.3	1.6	- 14.0	1.5	1.9	- 23.8
Crude Inputs to Refineries	11.9	11.8	0.5	11.2	11.5	- 2.6
Crude Oil and Natural Gas Liquids Production	10.2	10.2	0.04	10.2	10.2	0.2
Net Imports <sup>1</sup>	4.2	4.0	5.4	3.4	3.9	- 11.1
Net Crude Oil Imports <sup>2</sup>	3.1	2.8	8.3	2.5	2.7	- 8.5
SPR Imports	0.3	0.2	35.8	0.2	0.2	20.9
Net Product Imports	0.8	0.9	- 10.3	0.8	1.0	- 23.5
Crude Oil Stock Withdrawal <sup>3</sup>	0.20	0.22	—	- 0.06	0.13	—
Product Stock Withdrawal	- 0.31	- 0.03	—	0.74	0.99	—
Stocks at End of Period (Million Barrels)						
Crude Oil <sup>2</sup>	359	348	NM			
Motor Gasoline <sup>3</sup>	220	215	NM			
Distillate Fuel Oil	107	114	NM			
Residual Fuel Oil	49	59	NM			
Total Product	702	740	NM			
SPR	327	261	NM			
Total	1,388	1,349	NM			

<sup>1</sup>Gross Imports of crude oil including Strategic Petroleum Reserve (SPR) and petroleum products less exports of crude oil and petroleum products.

<sup>2</sup>Excluding SPR.

<sup>3</sup>Including blending components.

NM = Not meaningful due to new stock basis.

Note: Percent changes are based on unrounded values. May 1983 data are estimates based on weekly data, except for export and Natural Gas Liquids Production estimates which are April 1983 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, June 1983.



# U.S. Petroleum Refinery Trends and Outlook

Substantial and significant changes have occurred in the U.S. petroleum refining industry during recent years. By January 1, 1983, refiners had closed over one-fifth of the record high 324 refineries operable on January 1, 1981, and reduced crude oil distillation capacity by 1.8 million barrels per calendar day (MMB/CD) (see Table 1). Over the same 2-year period, refinery output mix shifted from heavier products (such as residual fuel oil) toward lighter products (such as gasoline), while crude oil inputs to refineries shifted in the opposite direction, toward a lower gravity and a higher sulfur content. This article discusses the principal factors associated with these changes and the near term outlook for petroleum refining.

## Petroleum Refining Capacity

Crude oil distillation capacity as of January 1 increased each year beginning in 1966 to a record high of 18.6 MMB/CD in 1981 and declined in 1982 and 1983. The recently completed annual survey of the U.S. petroleum refining industry shows that crude oil distillation capacity of operable refineries on January 1, 1983, totaled 16.9 MMB/CD, 1.0 MMB/CD below the comparable January 1, 1982, level, and 1.8 MMB/CD below the record January 1, 1981, level. Of the January 1, 1983, total operable crude oil distillation capacity, 1.9 MMB/CD was idle. Most of this idle capacity (1.1 MMB/CD) was at facilities that were partially in operation. The remainder (0.8 MMB/CD) was at 25 refineries that were totally idle, but capable of being restarted within 30 days or under repairs that could be completed within 90 days.<sup>1</sup>

Trends in crude oil distillation capacity and the number of operable refineries were affected by reduced demand for petroleum products ("demand" is identified in EIA publications as "products supplied"), crude oil pricing shocks initiated by the Organization of Petroleum Exporting Countries<sup>2</sup> (OPEC), and changing U.S. regulations. Following the 1973-1974 embargo, imported crude oil average prices to U.S. refiners increased from \$4.08 per barrel in 1973 to a record \$37.05 per barrel in 1981.<sup>3</sup> During this period, the Federal Government controlled prices for domestic crude oil and began a Crude Oil Entitlements Program that created incentives for the construction of small refineries. These actions reduced some of the impact of the price shocks. Decontrol of domestic oil prices and the end of

the entitlement program occurred early in 1981. Energy conservation, automotive fuel efficiency improvements, low levels of industrial activity, and high prices contributed to the lowest level of petroleum demand in over a decade, 15.3 million barrels per day (MMBD) for 1982.<sup>4</sup> In this environment, refiners elected to shut down some refineries and reduce total crude oil distillation capacity (see Table 1).

There were 258 operable refineries on January 1, 1983, substantially fewer than the record number operable in 1981 (see Figure 1). Eighty-eight percent of the refineries shut down during 1981 and 1982 had a capacity of 30,000 barrels per calendar day (B/CD) or less, and 54 percent of the shutdowns had a crude oil distillation capacity of 10,000 B/CD, or less. Only four of the shutdown refineries had a capacity greater than 100,000 barrels per day<sup>5</sup>. The largest refinery shutdown was the Dow Chemical U.S.A. refinery in Freeport, Texas, which had a capacity of 190,000 barrels per day and had only been in operation for 1 year. The reduction in the number of smaller refineries was particularly related to the elimination of the Crude Oil Entitlements Program that favored small refiners.

During 1981 and 1982 the 10 largest refiners reduced the number of refineries they operated from 75 to 65. The shutdowns resulted in a 13-percent reduction in the number of their refineries but only a 9-percent reduction in their crude oil distillation capacity (including reductions in capacity for some refineries that continued operating). These reductions can be compared to total reductions of 21 percent in the number of refineries shut down but only 7 percent of total crude oil distillation capacity.<sup>6</sup>

Petroleum Administration for Defense (PAD) Districts I (East Coast) and II (Midwest) lost respectively 19 and 17 percent of their January 1, 1981 crude oil distillation capacity during 1981 and 1982. PAD District V (West

<sup>1</sup>Crude oil distillation capacity data and information concerning refinery operability as of January 1, 1983, are published in EIA's *Petroleum Supply Annual, 1982* (DOE/EIA-0340 (82/1) (Washington, D.C., 1983). See Refinery Capacity Table 1 of that publication. Previous years' data are taken from EIA's *Petroleum Supply Annual, 1981*, *Petroleum Refineries in the United States and U.S. Territories*, DOE/EIA-0111 (81) and earlier issues. Prior to 1978, the petroleum refineries report was published by the U.S. Bureau of Mines.

<sup>2</sup>Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

<sup>3</sup>Energy Information Administration, *1982 Annual Energy Review*, DOE/EIA-0384 (82) (Washington, D.C., 1983) Table 41, p. 91.

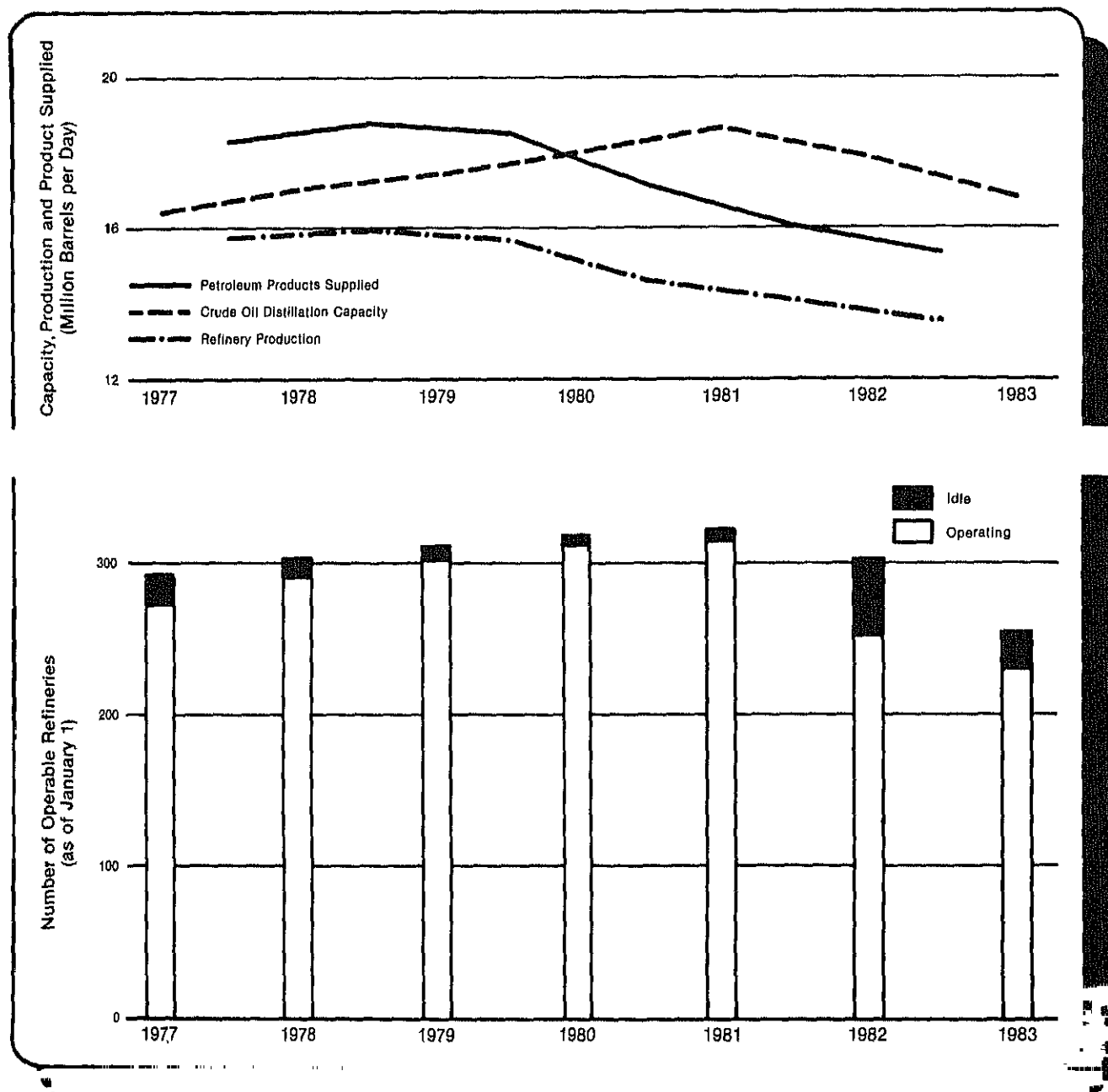
<sup>4</sup>Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (83/06) (Washington, D.C., 1983) p. 10.

<sup>5</sup>*Petroleum Supply Annual, 1982*, Refinery Capacity Table 10.

<sup>6</sup>*Petroleum Supply Annual, 1982*, Refinery Capacity Table 4 and *Petroleum Supply Annual, 1981*, Refinery Capacity Table 4.

**NOTE:** The statistics which appear in this article were obtained from the 1982 Petroleum Supply Annual (except where noted) and are final. They may conflict with 1982 preliminary data in the Summary Statistics section of this publication which begins on page 10. The Summary Statistics section will be updated with final 1982 data in next month's issue.

**Figure 1. Operable Refineries, Crude Oil Distillation Capacity, Refinery Production and Products Supplied**



Note: Number of operable refineries and capacity data are as of January 1. Petroleum product supplied and refinery production are yearly averages.

Source: Energy Information Administration, *Petroleum Supply Annual*, 1982, and predecessor reports.

**Table 1. Refinery Capacities on January 1, 1981, 1982, and 1983**

	Operable Refineries		Crude Distillation Capacity (Thousand Barrels per Calendar Day)			Charge Capacity (Thousand Barrels per Stream Day)					
	Total	Oper- ating	Total	Oper- ating	Vacuum Distillation	Thermal Operation	Catalytic Cracking (Fresh)	Catalytic Cracking (Recycle)	Catalytic Reform- ing	Catalytic Hydro- cracking	Catalytic Hydro- treating <sup>1</sup>
1981	324	315	18,620	18,051	7,033	1,587	5,543	594	4,098	909	8,487
1982	301	254	17,890	16,104	7,197	1,782	5,473	562	3,966	892	8,539
1983	258	233	16,859	14,961	7,180	1,715	5,402	488	3,918	883	8,354

<sup>1</sup>Includes Catalytic Hydrorefining.

Sources: Energy Information Administration, *Petroleum Supply Annual, 1981 and 1982*, and *Petroleum Refineries in the United States and U.S. Territories*, January 1, 1981.

Coast) and PAD District III (Gulf Coast) losses were the smallest, 2 percent and 6 percent, respectively. PAD District IV (Rocky Mountains) and the U.S. total declines were between 9 and 10 percent. In terms of actual capacity, the largest loss was in PAD District II, 0.7 MMB/CD. Substantial growths in their portions of the U.S. total crude oil distillation capacity occurred in PAD Districts III and V.

### Changes in Product Outputs

U.S. refinery production equaled 88 percent of domestic petroleum demand in 1982, compared to 85 percent in 1978, despite the reduction in crude oil distillation capacity that has occurred since the beginning of 1981 (see Figure 1). The remaining domestic petroleum demand was met by net imports, finished products from natural gas plants, and product stocks drawdowns.

Although the demand for petroleum products declined from a record 18.8 MMB/D in 1978 to 15.3 MMB/D in 1982, the decline was not uniform for all products. There was an appreciable shift in demand toward lighter products and away from heavier products.<sup>7</sup>

In response to these demand shifts, refiners increased the proportion of downstream processing capability that could raise the yields of lighter products while decreasing their total capacity, as discussed earlier. From January 1, 1981, to January 1, 1983, downstream capability as a percentage of crude oil distillation capacity increased nearly 2 percentage points for catalytic cracking and 4 percentage points for catalytic hydrorefining and hydrotreating.<sup>8</sup> The larger growth in catalytic hydrorefining and hydrotreating was to increase the flexibility to process lower gravity and higher sulfur crude oil feedstocks, and the growth in catalytic cracking was to increase yields of lighter products. The percentage increases resulted both from new construction of downstream capacity and the closing of many smaller refineries which had little downstream capacity.

### Crude Oil Feedstocks

The sources and quality of crude oil inputs to refineries have changed significantly in recent years. For more than a decade, crude oil production in the United States has been virtually at capacity and domestic crude has had a lower average price than imported crudes. Thus,

imports were used principally to fill the gap between domestic crude oil supply and demand. Domestic crude oil accounted for 46 percent of crude oil inputs to refineries in 1978 and 72 percent of crude oil receipts by refineries in 1982.<sup>9</sup>

With the start up of the Trans Alaskan Pipeline System in 1977, production of crude oil from the North Slope of Alaska could be transported to the Lower-48 States. Crude oil produced from that area has a gravity of about 27° API and a sulfur content of about 1.0 percent (by weight).<sup>10</sup> This gravity is lower and sulfur content higher than the U.S. averages. Thus, as North Slope production increased its share of U.S. crude oil supply, there was movement toward a lower average API gravity and also movement toward a higher average sulfur content, contributing to the need for more complex refining capability. During 1982, North Slope production was about one-fifth of the U.S. total.<sup>11</sup>

Because of availability and price differentials between higher gravity, lower sulfur content crude oil and lower-gravity, higher sulfur crude oils, it became more profitable in many instances to import more of the lower gravity, higher sulfur crudes.

Information collected recently by EIA indicates that the average sulfur content of crude oil inputs to refineries increased from 0.89 percent in 1981 to 0.91 percent in 1982. Concurrently, the average gravity declined from 33.8° to 33.1° API.<sup>12</sup>

<sup>7</sup>*Petroleum Supply Monthly*, Summary Statistics and Table 6; and Energy Information Administration, *Crude Petroleum, Petroleum Products, and Natural Gas Liquids: 1978*, DOE/EIA-0108/78, (Washington, D.C., 1979) Tables 1 and 2.

<sup>8</sup>*Petroleum Supply Annual, 1982*, Refinery Capacity Table 1; and *Petroleum Refineries in the United States and U.S. Territories* Table 1.

<sup>9</sup>*Petroleum Supply Annual, 1982*, Table 16, and *Crude Petroleum, Petroleum Products and Natural Gas Liquids: 1978*, Table 15.

<sup>10</sup>*International Petroleum Encyclopedia*, Vol. 12, (Tulsa, OK: The Petroleum Publishing Company, 1979) p. 311.

<sup>11</sup>Energy Information Administration, *Monthly Energy Review* DOE/EIA-0035/83/05 (Washington, D.C., 1983) p. 34.

<sup>12</sup>EIA Form 87, "Refinery Report."

## Outlook

Respondents to the EIA's annual refinery survey for 1983 project that crude oil distillation capacity on January 1, 1984 will be 17.5 million barrels per stream day (MMB/SD),<sup>13</sup> a net decrease of 0.4 MMB/SD from the January 1, 1983, level. Most of this decrease is expected to result from the planned closing of seven refineries during 1983. Respondents projected net increases of 388 thousand barrels per stream day (MB/SD) in downstream capacity. The largest changes in downstream capability include a decline in vacuum distillation (155 MB/SD) and increases in catalytic hydrotreating (433 MB/SD), and thermal operations (83 MB/SD).<sup>14</sup> The projected increase in catalytic hydrotreating is equal to almost 5 percent of the operable capacity on

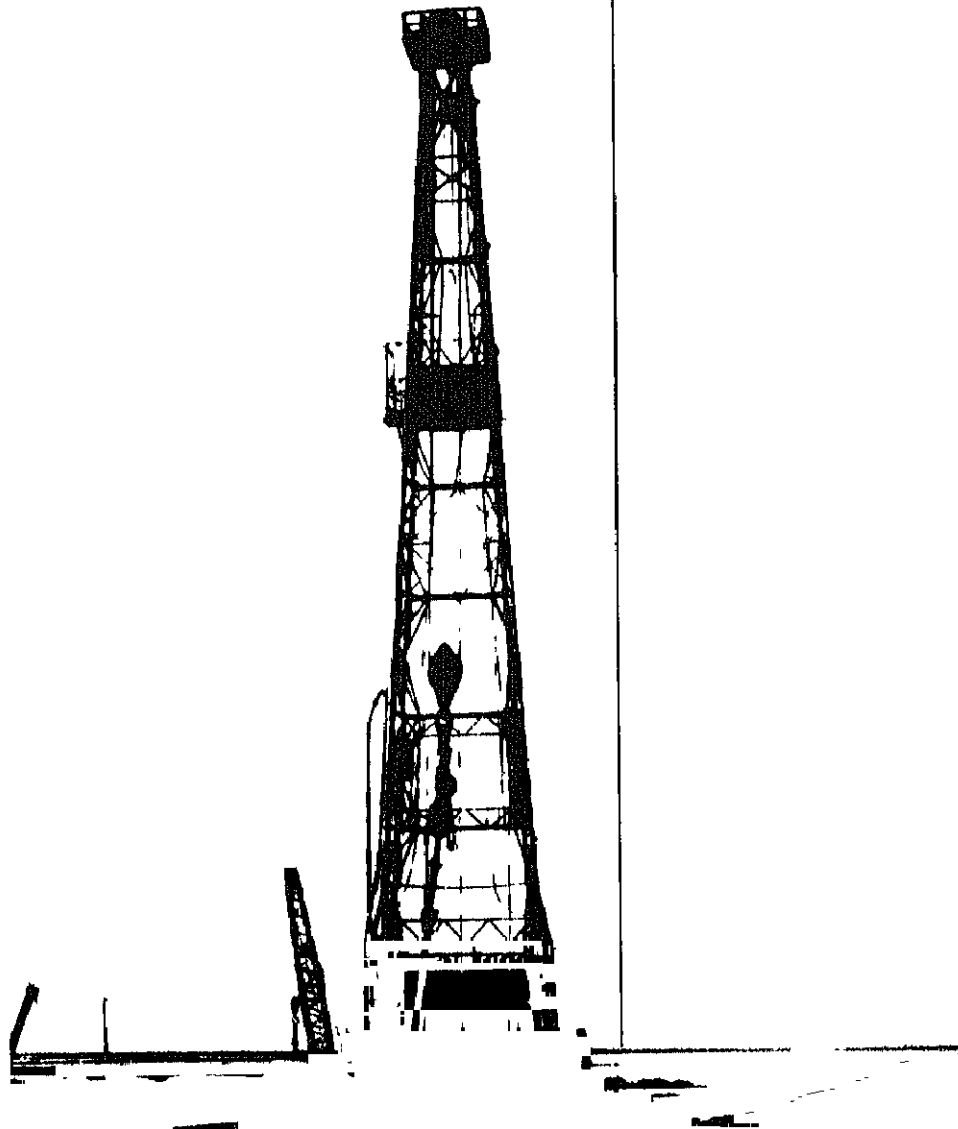
January 1, 1983. The addition of this downstream capability will provide the flexibility to process lower gravity, higher sulfur crude oil feedstocks into lighter products.

Although the number of operable refineries is expected to decrease, the shift toward more complex refining facilities begun several years ago is expected to continue. A number of refiners are upgrading downstream processing equipment to enable them to diversify product mixes and increase yields of lighter products.

<sup>13</sup>"Stream day" denotes an operating day on a refinery unit; "stream day" rates are about 6 percent higher than "calendar day" rates, because "calendar day" rates include downtime, see Glossary, this issue.

<sup>14</sup>*Petroleum Supply Annual 1982*, Refinery Capacity Table 8.

# Summary Statistics



# Crude Oil<sup>1</sup> and Petroleum Products Overview

		Field Production			Stock Withdrawal <sup>2</sup>			Ending Stocks <sup>3</sup>
		Total Domestic <sup>4</sup>	Crude Oil	Natural Gas Plant Production	Crude Oil <sup>5</sup>	Petroleum Products	Petroleum Products Supplied	Crude Oil <sup>5</sup> and Petroleum Products
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,688	-62	-117	16,653	<sup>6</sup> 1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	<sup>6</sup> 1,392
1981	January	10,231	8,540	1,652	50	1,159	18,430	1,388
	February	10,294	8,604	1,653	-278	250	16,989	1,389
	March	10,272	8,613	1,624	-632	224	15,907	1,401
	April	10,195	8,557	1,599	-595	148	15,350	1,415
	May	10,160	8,501	1,593	-391	-374	15,353	1,438
	June	10,287	8,629	1,594	-135	406	16,095	1,430
	July	10,098	8,500	1,548	-360	91	15,682	1,439
	August	10,243	8,583	1,614	397	-999	15,263	1,457
	September	10,281	8,604	1,612	-285	-341	15,655	1,476
	October	10,225	8,563	1,598	-760	477	15,822	1,485
	November	10,269	8,586	1,630	-325	-233	15,593	1,501
	December	10,220	8,585	1,590	-170	745	16,596	1,484
	AVERAGE	10,230	8,572	1,609	-290	130	16,058	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,261	8,690	1,524	-216	1,268	15,941	1,431
	March	10,212	8,597	1,570	-65	1,049	15,560	1,401
	April	10,296	8,652	1,588	107	1,594	16,048	1,350
	May	10,223	8,660	1,520	49	-34	14,845	1,349
	June	10,242	8,681	1,505	86	-515	14,931	1,362
	July	10,228	8,649	1,521	-155	-865	14,771	1,394
	August	10,301	8,701	1,543	-440	4	14,838	1,407
	September	10,306	8,733	1,513	252	-489	14,921	1,415
	October	10,283	8,676	1,540	-564	-55	14,820	1,434
	November	10,377	8,690	1,634	-357	-357	15,031	1,455
	December	10,348	8,660	1,638	143	703	15,508	<sup>6</sup> 1,429
	AVERAGE	10,278	8,671	1,554	-117	280	15,253	
1983	January	10,356	8,634	1,668	-567	865	14,765	1,453
	February	10,298	8,660	1,585	-382	1,128	14,772	1,432
	March	10,259	8,677	1,544	56	1,765	15,484	1,375
	April*	10,229	R 8,686	1,502	R -438	R 431	R 14,779	R 1,376
	May**	NA	8,682	NA	-81	-309	14,738	1,388
	AVERAGE	NA	8,668	NA	-279	771	14,911	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Ending stocks for 1973-1980 are totals as of December 31.

<sup>4</sup> Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

<sup>5</sup> Includes stocks located in the Strategic Petroleum Reserve.

<sup>6</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years.

The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-1,121, 1980-1,420 and 1982-1,462.

Stock withdrawals during 1975, 1981 and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 9.1.

\*\* Italics denote preliminary data. See Explanatory Note 8.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> and Petroleum Products Overview ( continued )

		Imports			Exports				
		Total	Crude Oil <sup>2</sup>	Petroleum Products	Total	Crude Oil	Petroleum Products		Net <sup>3</sup> Imports
Thousand Barrels per Day									
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025	
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892	
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846	
1976	AVERAGE	7,313	5,287	2,026	223	8	215	7,090	
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565	
1978	AVERAGE	8,363	6,356	2,008	362	158	204	8,002	
1979	AVERAGE	8,456	6,519	1,937	472	235	237	7,984	
1980	AVERAGE	6,909	5,263	1,646	544	287	258	6,365	
1981	January	6,827	4,932	1,895	558	339	219	6,270	
	February	6,772	4,873	1,899	569	198	371	6,203	
	March	6,028	4,521	1,507	586	210	376	5,442	
	April	5,668	4,338	1,330	570	198	372	5,098	
	May	5,775	4,287	1,489	595	312	283	5,180	
	June	5,435	4,061	1,375	420	123	297	5,015	
	July	5,816	4,296	1,521	571	257	314	5,245	
	August	5,767	4,179	1,588	644	204	440	5,123	
	September	6,365	4,740	1,624	519	194	325	5,845	
	October	5,959	4,380	1,579	738	226	512	5,221	
	November	5,741	4,046	1,695	701	278	423	5,041	
	December	5,843	4,137	1,706	656	189	467	5,187	
	AVERAGE	5,996	4,396	1,599	595	228	367	5,401	
1982	January	5,232	3,648	1,585	829	238	591	4,404	
	February	4,691	2,949	1,742	804	304	499	3,887	
	March	4,461	2,856	1,606	882	321	561	3,579	
	April	4,286	2,813	1,474	786	174	611	3,501	
	May	4,784	3,314	1,471	803	262	542	3,981	
	June	5,227	3,782	1,445	703	94	609	4,524	
	July	5,763	4,245	1,518	741	229	512	5,022	
	August	5,156	3,820	1,336	858	304	554	4,298	
	September	5,359	3,603	1,757	791	184	606	4,569	
	October	5,230	3,636	1,594	932	270	662	4,298	
	November	5,726	3,863	1,864	786	262	524	4,940	
	December	4,562	2,956	1,606	860	193	667	3,702	
	AVERAGE	5,041	3,461	1,581	815	236	579	4,226	
1983	January	4,372	2,938	1,434	973	117	856	3,399	
	February	3,691	2,268	1,423	865	262	603	2,825	
	March	3,629	2,232	1,398	801	174	627	2,829	
	April*	R 4,744	R 3,154	R 1,590	809	88	721	3,935	
	May**	5,004	3,450	1,554	NA	NA	NA	NA	
	AVERAGE	4,297	2,817	1,480	NA	NA	NA	NA	

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Includes crude oil for storage in the Strategic Petroleum Reserve.

<sup>3</sup> Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 9.1.

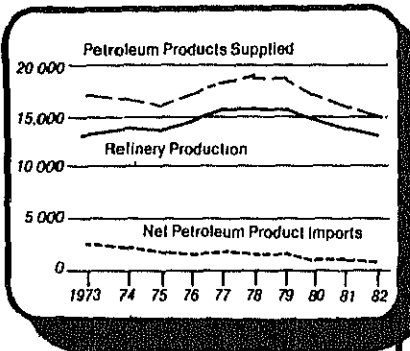
\*\* Italics denote preliminary data. See Explanatory Note 8.

Geographic coverage: The 50 United States and the District of Columbia.

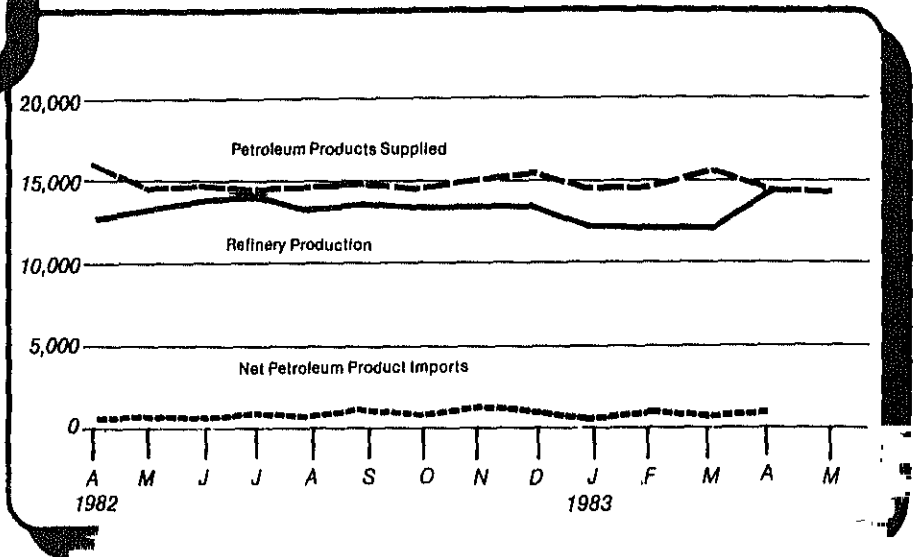
Sources: See "Sources" at the end of this section.

## Petroleum Overview

(Thousand Barrels Per Day)



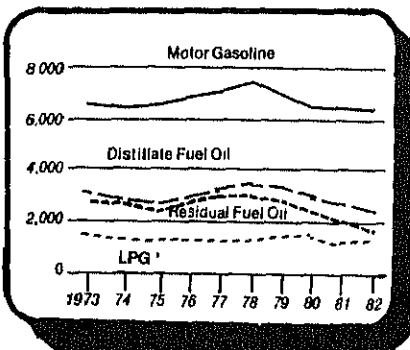
Annual



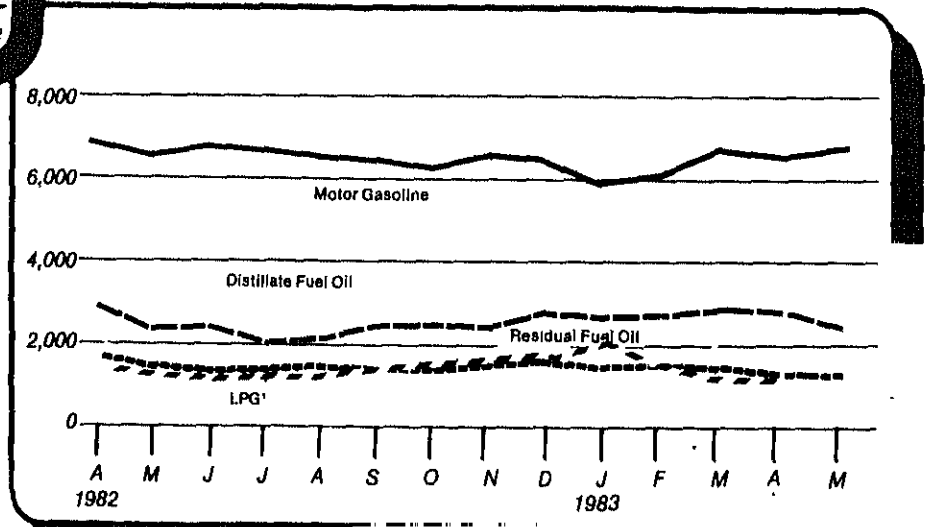
Monthly

## Petroleum Products Supplied

(Thousand Barrels Per Day)



Annual

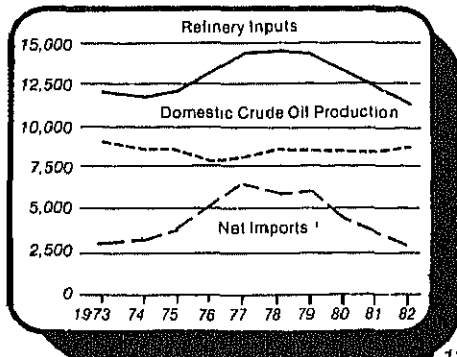


Monthly

<sup>1</sup> Liquefied Petroleum Gases

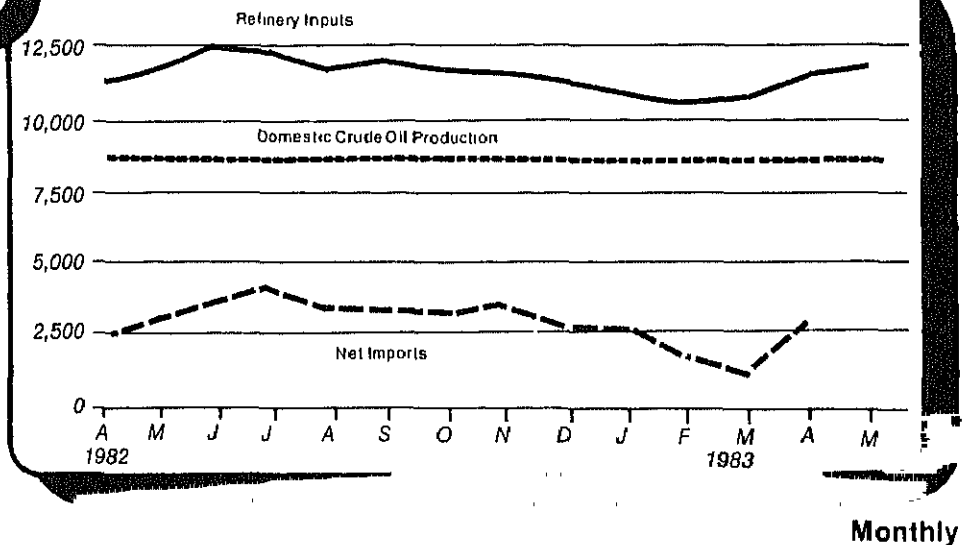
## Crude Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

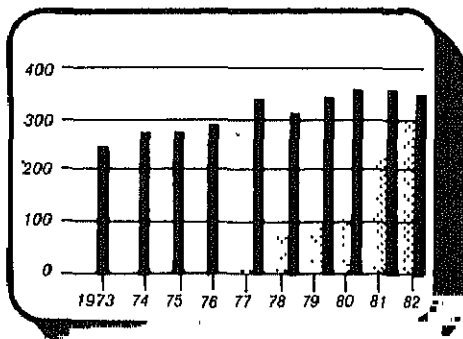
<sup>1</sup> Excludes SPR Imports



Monthly

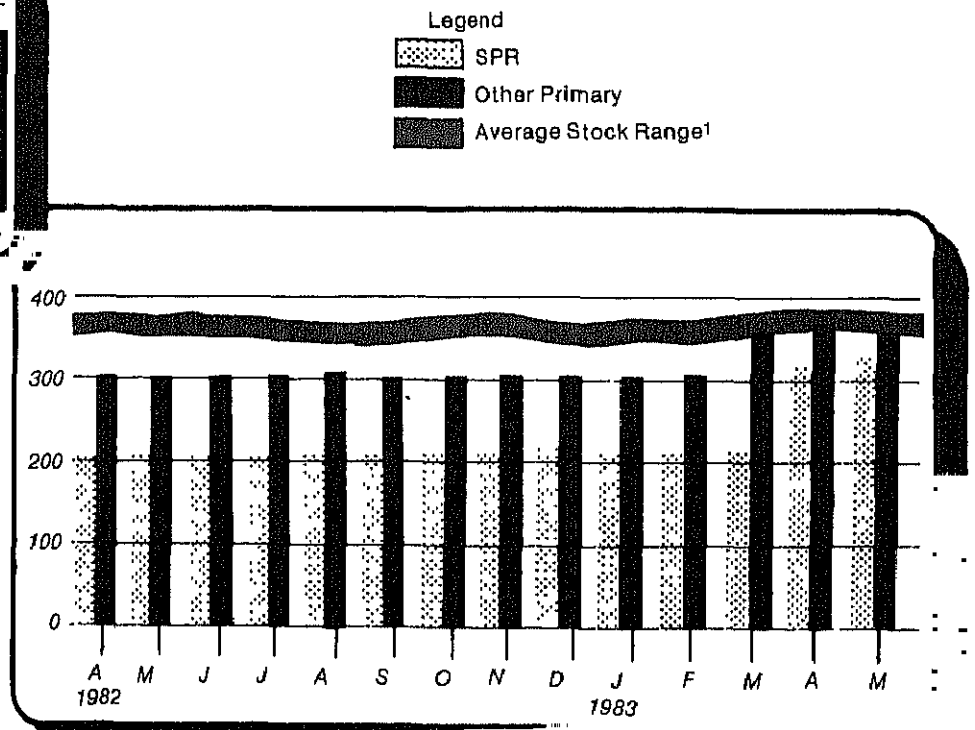
## Crude Oil Ending Stocks

(Millions of Barrels)



Annual

<sup>1</sup> Level and width of Average Stock Ranges for crude oil is based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.



Monthly 13

# Crude Oil<sup>1</sup> Supply and Disposition

		Supply						
		Field Production		Imports			Stock Withdrawal <sup>2</sup>	
		Total Domestic	Alaskan	Total	SPR <sup>3</sup>	Other	SPR <sup>3</sup>	Other
		Thousand Barrels per Day						
								Unac- accounted for Crude Oil
1973	AVERAGE	9,208	198	3,244		3,244	11	3
1974	AVERAGE	8,774	193	3,477		3,477	-62	-25
1975	AVERAGE	8,375	191	4,105		4,105	-17	17
1976	AVERAGE	8,132	173	5,287		5,287	-39	77
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-6
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	-57
1979	AVERAGE	8,552	1,401	6,519	67	6,452	-67	-11
1980	AVERAGE	8,597	1,617	5,263	44	5,219	-45	34
1981	January	8,540	1,606	4,932	106	4,826	-161	201
	February	8,604	1,619	4,873	80	4,793	-127	-150
	March	8,613	1,618	4,521	140	4,382	-155	-477
	April	8,557	1,608	4,338	272	4,066	-444	-151
	May	8,501	1,580	4,287	386	3,901	-513	122
	June	8,629	1,632	4,061	318	3,743	-434	299
	July	8,500	1,605	4,296	175	4,121	-324	-36
	August	8,583	1,602	4,179	257	3,922	-372	769
	September	8,604	1,607	4,740	435	4,305	-486	201
	October	8,563	1,596	4,380	453	3,927	-501	-259
	November	8,586	1,614	4,046	271	3,774	-259	-66
	December	8,585	1,623	4,137	165	3,971	-252	82
	AVERAGE	8,572	1,609	4,396	256	4,141	-336	46
1982	January	8,669	1,712	3,648	170	3,478	-159	-77
	February	8,690	1,715	2,949	159	2,790	-213	-3
	March	8,597	1,702	2,856	185	2,671	-235	170
	April	8,652	1,687	2,813	190	2,623	-233	341
	May	8,660	1,725	3,314	204	3,110	-176	225
	June	8,681	1,675	3,782	105	3,678	-105	191
	July	8,649	1,715	4,245	97	4,147	-97	-58
	August	8,701	1,699	3,820	208	3,611	-208	-233
	September	8,733	1,707	3,603	139	3,463	-143	395
	October	8,676	1,677	3,636	216	3,420	-216	-348
	November	8,690	1,667	3,863	180	3,683	-179	-177
	December	8,660	1,663	2,956	124	2,832	-125	267
	AVERAGE	8,671	1,695	3,461	165	3,296	-174	57
1983	January	8,634	1,698	2,938	219	2,720	-219	-348
	February	8,660	1,725	2,268	197	2,071	-197	-185
	March	8,677	1,726	2,232	201	2,031	-184	240
	April*	R 8,686	1,710	R 3,154	R 205	R 2,949	R -197	R -241
	May**	8,682	1,710	3,450	277	3,173	-276	195
	AVERAGE	8,668	1,714	2,817	220	2,597	-215	-64

<sup>1</sup> Includes lease condensate.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 9.2.

\*\* Italics denote preliminary data. See Explanatory Note 8.

Note: Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Crude Oil<sup>1</sup> Supply and Disposition ( continued )

		Supply	Disposition				Ending Stocks <sup>2</sup>		
		Crude Used Directly <sup>3</sup>	Crude Losses	Refinery Inputs	Exports	Product Supplied <sup>3</sup>	Total Crude Oil	SPR <sup>4</sup>	Other Primary
		Thousand Barrels per Day					Millions of Barrels		
1973	AVERAGE	-19	13	12,431	2	NA	242		242
1974	AVERAGE	-15	13	12,133	3	NA	<sup>5</sup> 265		<sup>5</sup> 265
1975	AVERAGE	-17	13	12,442	6	NA	271		271
1976	AVERAGE	-18	15	13,416	8	NA	285		285
1977	AVERAGE	-14	16	14,602	50	NA	348	7	340
1978	AVERAGE	-14	16	14,739	158	NA	376	67	309
1979	AVERAGE	-13	16	14,648	235	NA	430	91	339
1980	AVERAGE	-13	15	13,481	287	NA	<sup>5</sup> 466	108	<sup>5</sup> 358
1981	January	-43	6	13,247	339	NA	486	112	374
	February	-55	3	12,902	198	NA	494	116	378
	March	-57	6	12,383	210	NA	514	121	393
	April	-59	3	12,091	198	NA	532	134	397
	May	-59	3	12,309	312	NA	544	150	394
	June	-58	7	12,415	123	NA	548	163	385
	July	-58	7	12,261	257	NA	559	173	386
	August	-58	5	12,908	204	NA	547	185	362
	September	-61	4	12,505	194	NA	555	199	356
	October	-63	3	12,057	226	NA	579	215	364
	November	-64	4	12,240	278	NA	589	223	366
	December	-63	4	12,349	189	NA	594	230	363
	AVERAGE	-58	5	12,470	228	NA			
1982	January	-63	3	11,638	238	NA	606	235	371
	February	-64	2	11,252	304	NA	612	241	371
	March	-63	5	11,277	321	NA	614	249	366
	April	-65	3	11,386	174	NA	611	256	355
	May	-62	3	11,801	262	NA	609	261	348
	June	-60	7	12,498	94	NA	607	264	343
	July	-60	3	12,447	229	NA	612	267	345
	August	-57	2	11,858	304	NA	625	274	352
	September	-56	3	12,126	184	NA	618	278	340
	October	-51	2	11,750	270	NA	635	285	351
	November	-51	1	11,741	262	NA	646	290	356
	December	-53	1	11,514	193	NA	<sup>5</sup> 642	294	<sup>5</sup> 348
	AVERAGE	-58	4	11,776	236	NA			
1983	January	NA	2	11,070	117	54	661	301	361
	February	NA	3	10,635	262	69	672	306	366
	March	NA	2	10,854	174	70	670	312	359
	April*	NA	2	R11,436	88	68	R684	318	R366
	May**	NA	NA	11,857	NA	NA	686	327	359
	AVERAGE	NA	NA	11,179	NA	NA			

<sup>1</sup> Includes lease condensate.

<sup>2</sup> Ending stocks for 1973-1980 are totals as of December 31.

<sup>3</sup> Beginning in January 1983, crude oil used directly as fuel is presented as product supplied for crude oil. Prior to January 1983 crude oil used directly was included with crude oil losses in this table and with product supplied for distillate and residual fuel oils.

<sup>4</sup> Strategic Petroleum Reserve.

<sup>5</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis) end of year stocks would be: 1974-265, 1980-483 (Total) and 375 (Other Primary), and 1982-644 (Total) and 350 (Other Primary).

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 9.2.

\*\* Italics denote preliminary data. See Explanatory Note 8.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks <sup>1</sup>	
		Total Production	Imports <sup>2</sup>	Stock With- drawal <sup>2 3</sup>	Exports	Product Supplied			Total Motor Gasoline <sup>4</sup>	Finished Motor Gasoline
						Total	Unleaded <sup>5</sup>	Unleaded		
Thousand Barrels per Day								Percent of Total	Millions of Barrels	
1973	AVERAGE	6,535	134	9	4	6,674	NA	NA	209	
1974	AVERAGE	6,360	204	-24	2	6,537	NA	NA	<sup>6</sup> 218	
1975	AVERAGE	6,520	184	-28	2	6,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	( <sup>6</sup> )	7,034	2,798	39.8	237	
1980	AVERAGE	6,506	140	-66	1	6,579	3,067	46.6	<sup>6</sup> 261	
1981	January	6,715	138	-421	( <sup>6</sup> )	6,431	3,141	48.8	276	227
	February	6,308	111	-118	1	6,301	3,095	49.1	284	230
	March	6,213	171	-81	( <sup>6</sup> )	6,303	3,097	49.1	285	232
	April	6,114	186	303	( <sup>6</sup> )	6,602	3,284	49.7	272	223
	May	6,122	150	344	1	6,615	3,115	47.1	259	213
	June	6,220	186	622	1	7,028	3,419	48.6	242	194
	July	6,405	151	268	( <sup>6</sup> )	6,823	3,424	50.2	228	186
	August	6,611	124	-95	3	6,637	3,344	50.4	233	189
	September	6,564	169	-70	2	6,662	3,338	50.1	237	191
	October	6,426	147	7	3	6,578	3,257	49.5	236	190
	November	6,564	148	-338	1	6,373	3,198	50.2	248	201
	December	6,586	197	-91	11	6,681	3,444	51.5	253	203
		AVERAGE	6,405	157	28	2	6,588	3,264	49.5	
1982	January	6,181	114	-358	18	5,920	3,033	51.2	262	214
	February	5,917	133	28	8	6,070	3,145	51.8	262	213
	March	6,004	183	469	44	6,612	3,396	51.4	248	199
	April	6,104	177	641	33	6,890	3,494	50.7	223	180
	May	6,322	163	188	23	6,650	3,415	51.3	215	174
	June	6,767	195	-136	14	6,812	3,561	52.3	220	178
	July	6,788	200	-165	24	6,799	3,574	52.6	226	183
	August	6,447	284	-60	16	6,655	3,520	52.9	226	185
	September	6,530	215	-217	22	6,507	3,385	52.0	234	191
	October	6,253	177	-25	15	6,391	3,360	52.6	234	192
	November	6,273	206	91	11	6,559	3,448	52.6	230	189
	December	6,540	178	-164	7	6,548	3,486	53.2	<sup>6</sup> 235	<sup>6</sup> 194
		AVERAGE	6,347	186	24	20	6,537	3,403	52.1	
1983	January	6,020	148	-186	( <sup>6</sup> )	5,981	3,352	56.0	251	208
	February	5,848	142	32	( <sup>6</sup> )	6,022	3,257	54.1	251	207
	March	5,897	205	765	23	6,843	3,620	52.9	224	184
	April*	R6,202	R 273	R 27	1	R 6,501	3,505	53.9	R 221	R183
	May**	6,439	272	19	NA	6,722	NA	NA	220	185
	AVERAGE	6,085	209	134	NA	6,421	NA	NA		

<sup>1</sup> Ending stocks for 1973-1980 are totals as of December 31.

<sup>2</sup> Beginning in 1981, excludes blending components.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> Includes motor gasoline blending components.

<sup>5</sup> Includes gasohol.

<sup>6</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-225, 1980-263, 1982-244 (Total) and 203 (Finished). Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

(<sup>6</sup>) = Less than 500 barrels per day. NA = Not available. R = Revised data.

\* See Explanatory Note 9.3.

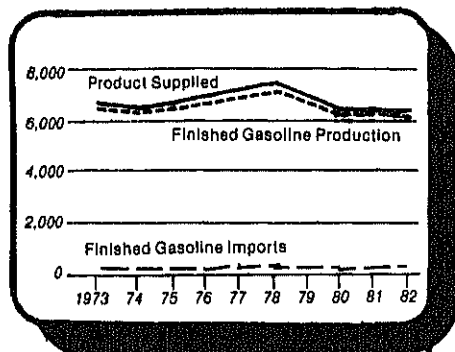
\*\* Italics denote preliminary data. See Explanatory Note 8.

Note: Beginning in January 1981, survey forms were modified.  
Geographic coverage: The 50 United States and the District of Columbia.

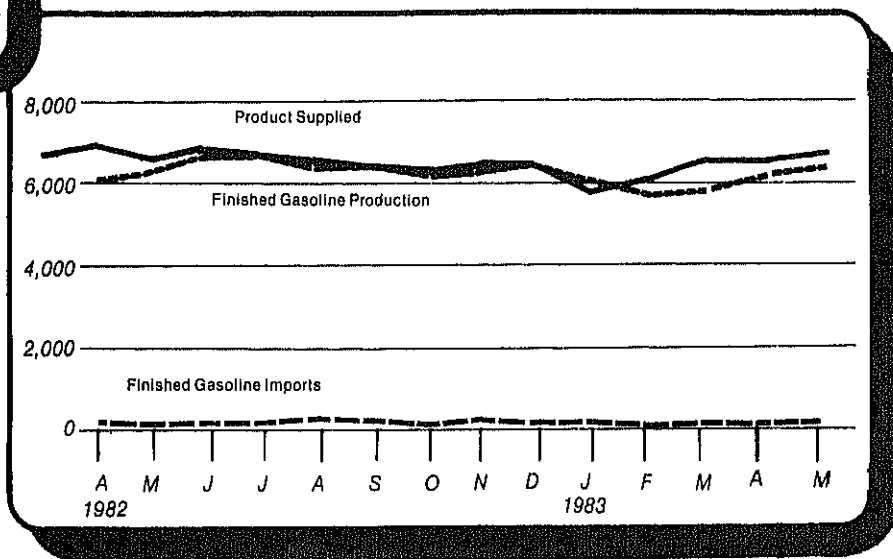
6 Sources: See "Sources" at the end of this section.

## Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



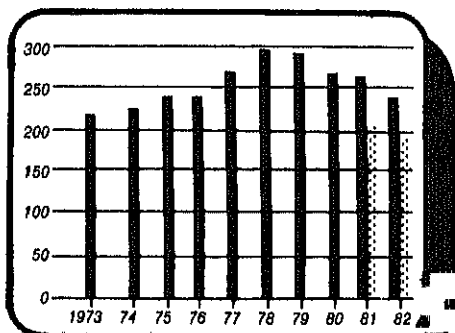
Annual



Monthly

## Motor Gasoline Ending Stocks

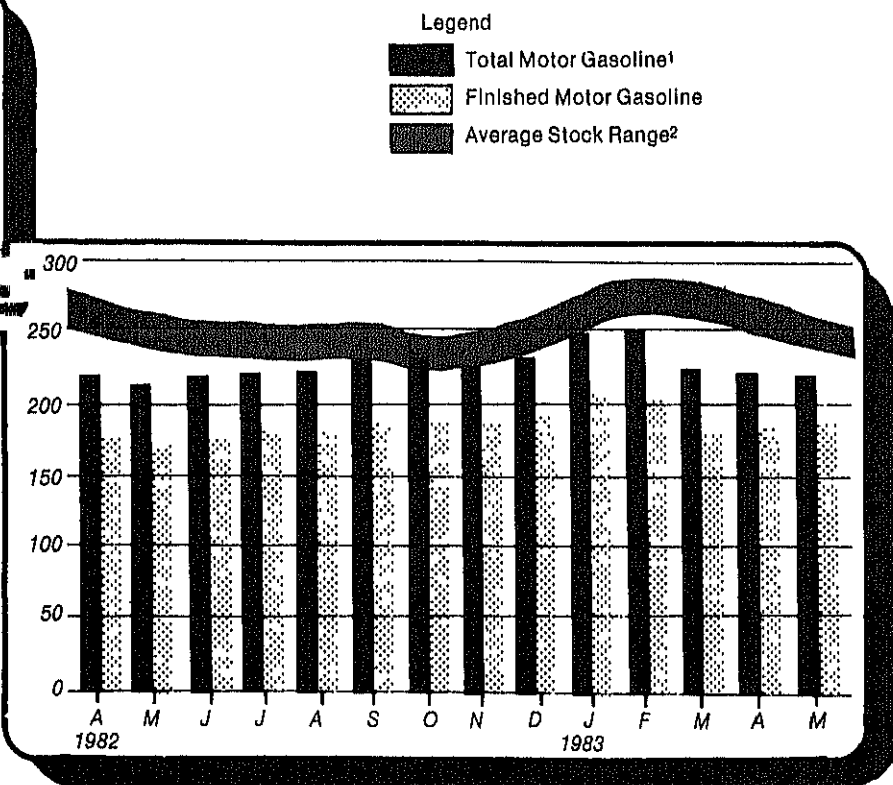
(Millions of Barrels)



Annual

<sup>1</sup> Includes finished motor gasoline blending components

<sup>2</sup> Level and width of Average Stock Range for total motor gasoline based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.



Monthly 17

# Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>3</sup>	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	196
1974	AVERAGE	2,669	289	-9	2	2	2,948	<sup>4</sup> 200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	186
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	AVERAGE	2,662	142	64	1	3	2,866	<sup>4</sup> 205
1981	January	2,989	273	836	11	( <sup>a</sup> )	4,109	179
	February	2,809	325	246	11	17	3,373	173
	March	2,484	147	284	9	( <sup>a</sup> )	2,904	164
	April	2,418	116	-9	10	3	2,532	165
	May	2,454	179	-232	10	( <sup>a</sup> )	2,411	172
	June	2,501	225	-270	9	( <sup>a</sup> )	2,464	180
	July	2,395	179	-204	10	2	2,378	186
	August	2,666	174	-450	8	( <sup>a</sup> )	2,388	200
	September	2,610	129	-235	10	1	2,513	207
	October	2,485	119	197	9	5	2,803	201
	November	2,716	124	36	11	6	2,880	200
	December	2,856	95	277	11	26	3,212	192
	AVERAGE	2,613	173	38	10	5	2,829	
1982	January	2,615	96	780	10	90	3,410	166
	February	2,447	130	689	11	90	3,187	147
	March	2,294	48	612	10	84	2,881	128
	April	2,357	59	631	13	64	2,996	109
	May	2,618	74	-184	10	75	2,444	114
	June	2,731	100	-335	10	55	2,450	125
	July	2,734	124	-761	11	24	2,084	148
	August	2,526	79	-346	10	40	2,228	159
	September	2,658	59	-77	12	139	2,514	161
	October	2,837	97	-290	8	66	2,586	170
	November	2,863	141	-514	8	24	2,475	186
	December	2,655	109	226	10	143	2,856	<sup>4</sup> 179
	AVERAGE	2,612	93	32	10	74	2,672	
1983	January	2,314	58	561	NA	173	2,760	168
	February	2,136	58	742	NA	105	2,832	147
	March	1,991	42	926	NA	59	2,900	119
	April*	R 2,169	R 73	R 518	NA	47	R 2,713	103
	May**	2,443	99	-118	NA	NA	2,338	107
	AVERAGE	2,212	66	522	NA	NA	2,706	

<sup>1</sup> Ending Stocks for 1973-1980 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

<sup>4</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-224, 1980-205, and 1982-186. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

(<sup>a</sup>) = Less than 500 barrels per day. NA = Not available. R = Revised data.

Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 9.4.

\*\* Italics denote preliminary data. See Explanatory Note 8.

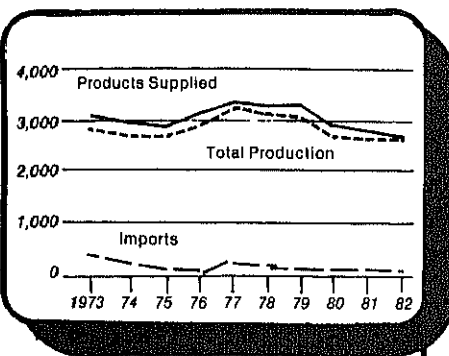
Note: Beginning in January 1981, survey forms were modified.

Geographic Coverage: The 50 United States and the District of Columbia.

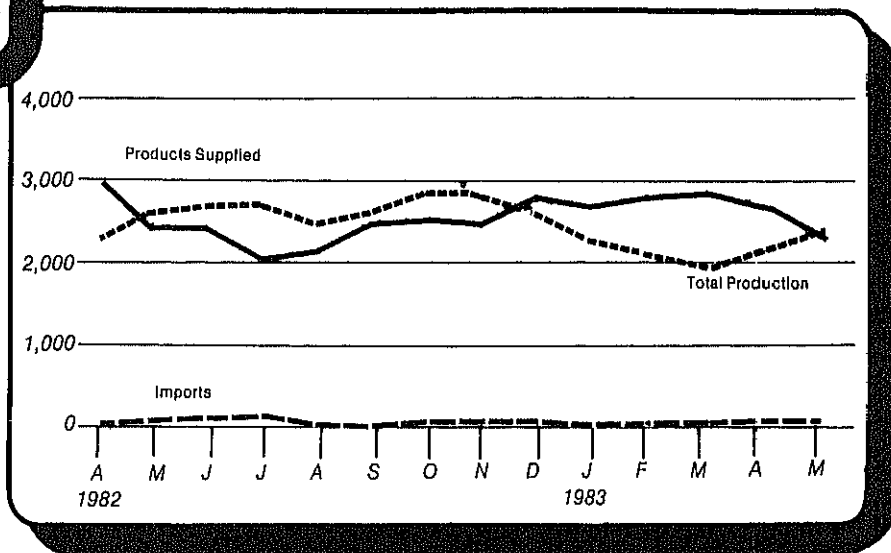
Sources: See "Sources" at the end of this section.

## Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



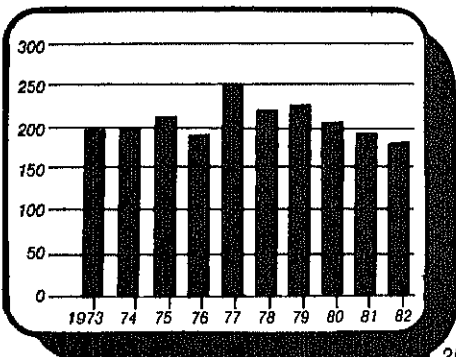
Annual



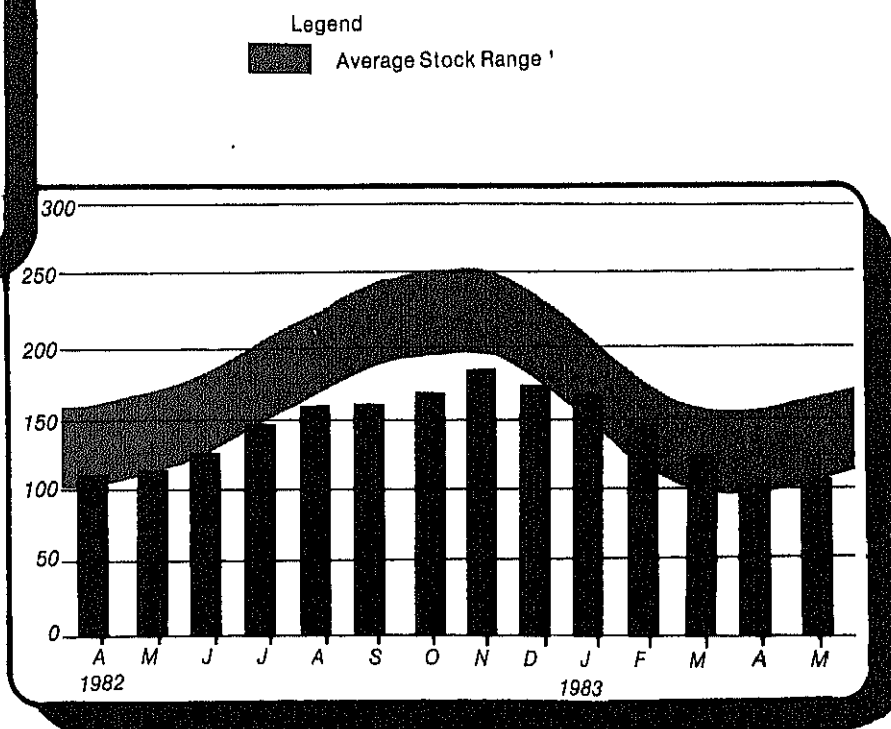
Monthly

## Distillate Fuel Oil Ending Stocks

(Millions of Barrels)



Annual



Monthly 19

<sup>1</sup> Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

# Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks <sup>1</sup>
	Total Production	Imports	Stock Withdrawal <sup>2</sup>	Crude Used Directly <sup>3</sup>	Exports	Product Supplied <sup>3</sup>	
	Thousand Barrels per Day						Millions of Barrels
1973 AVERAGE	971	1,853	5	17	23	2,822	53
1974 AVERAGE	1,070	1,587	-17	13	14	2,639	<sup>4</sup> 60
1975 AVERAGE	1,235	1,223	2	15	15	2,462	74
1976 AVERAGE	1,377	1,413	5	17	12	2,801	72
1977 AVERAGE	1,754	1,359	-48	13	6	3,071	90
1978 AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979 AVERAGE	1,667	1,151	-15	12	9	2,826	96
1980 AVERAGE	1,580	939	10	12	33	2,508	<sup>4</sup> 92
1981 January	1,812	1,015	302	32	65	2,896	82
February	1,565	954	150	44	125	2,588	78
March	1,424	699	100	48	145	2,126	75
April	1,320	584	66	49	151	1,868	73
May	1,223	741	-170	49	25	1,817	78
June	1,232	540	291	49	76	2,037	69
July	1,174	830	2	48	82	1,971	69
August	1,231	819	-179	50	69	1,852	75
September	1,292	841	-176	51	126	1,882	80
October	1,238	786	8	54	202	1,884	80
November	1,227	880	-49	53	203	1,909	81
December	1,329	916	110	52	157	2,250	78
AVERAGE	1,321	800	37	48	118	2,088	
1982 January	1,183	821	328	53	235	2,150	68
February	1,136	928	358	53	213	2,261	58
March	1,121	910	26	53	197	1,912	57
April	1,162	762	124	52	234	1,867	54
May	1,127	738	-175	52	191	1,551	59
June	1,077	643	-49	50	217	1,504	61
July	1,029	576	51	49	239	1,466	59
August	1,007	519	200	47	235	1,538	53
September	1,007	871	-302	44	148	1,472	62
October	954	758	-56	43	234	1,466	64
November	989	843	-95	43	182	1,597	66
December	990	747	8	43	186	1,602	<sup>4</sup> 66
AVERAGE	1,065	758	33	48	209	1,695	
1983 January	935	691	243	NA	294	1,574	61
February	857	632	270	NA	191	1,568	53
March	833	686	220	NA	169	1,569	46
April*	R 942	R 743	R -10	NA	310	R 1,364	R 47
May**	1,002	660	-145	NA	NA	1,334	49
AVERAGE	915	683	113	NA	NA	1,481	

<sup>1</sup> Ending Stocks for 1973-1980 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

<sup>4</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-75, 1980-81, and 1982-83. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

\* See Explanatory Note 9.4.

\*\* Italics denote preliminary data. See Explanatory Note 8.

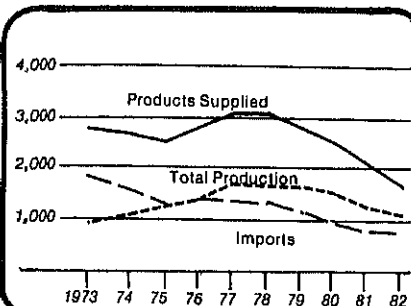
Note: Beginning in January 1981, survey forms were modified.

Geographic Coverage: The 50 United States and the District of Columbia.

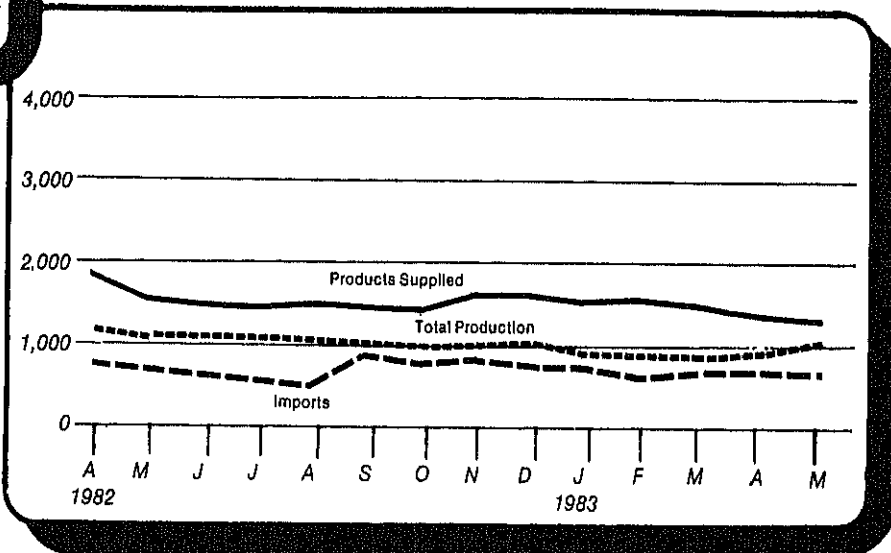
Sources: See "Sources" at the end of this section.

## Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



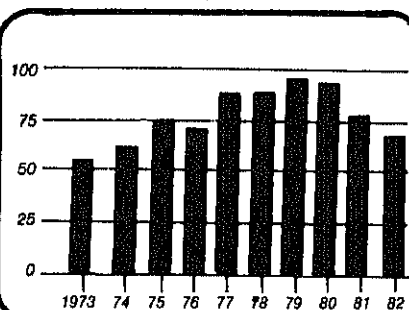
Annual



Monthly

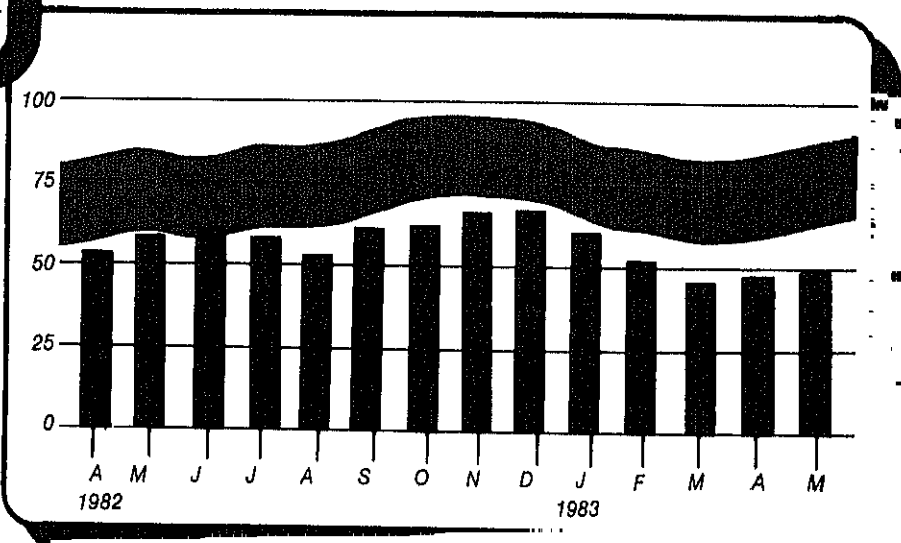
## Residual Fuel Oil Ending Stocks

(Millions of Barrels)



Legend

Average Stock Range <sup>1</sup>



<sup>1</sup> Level and width of Average Stock Range for residual fuel oil based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

Monthly 21

# Liquefied Petroleum Gases Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>1</sup>
		Total Production	Imports	Stock Withdrawal <sup>2</sup>	Refinery Inputs	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	1,800	132	-35	220	27	1,449	99
1974	AVERAGE	1,565	123	-38	220	25	1,406	<sup>3</sup> 113
1975	AVERAGE	1,527	112	-35	246	26	1,333	125
1976	AVERAGE	1,535	130	24	260	25	1,404	116
1977	AVERAGE	1,568	161	-55	233	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,556	217	70	236	15	1,592	111
1980	AVERAGE	1,535	216	-27	233	21	1,469	<sup>3</sup> 120
1981	January	1,617	306	363	352	21	1,913	117
	February	1,593	327	173	303	21	1,769	112
	March	1,551	260	-4	257	20	1,530	112
	April	1,586	214	-236	231	26	1,308	119
	May	1,587	189	-258	220	19	1,279	127
	June	1,567	206	-208	237	24	1,304	133
	July	1,507	213	-258	215	17	1,229	141
	August	1,592	195	-242	235	149	1,160	149
	September	1,622	199	-75	287	21	1,438	151
	October	1,593	287	72	320	76	1,556	149
	November	1,571	280	86	383	58	1,495	146
	December	1,468	255	379	428	50	1,624	135
	AVERAGE	1,571	244	-18	289	42	1,466	
1982	January	1,546	314	480	398	67	1,873	122
	February	1,476	291	310	327	51	1,699	114
	March	1,523	223	145	289	74	1,528	109
	April	1,566	188	107	257	77	1,527	106
	May	1,583	186	-61	235	43	1,431	108
	June	1,571	192	-109	262	106	1,286	111
	July	1,556	227	-5	253	37	1,487	111
	August	1,591	125	-44	254	61	1,357	112
	September	1,606	247	33	273	85	1,528	111
	October	1,582	194	92	306	81	1,481	109
	November	1,603	267	172	370	37	1,634	103
	December	1,626	258	270	395	56	1,702	<sup>3</sup> 95
	AVERAGE	1,570	225	115	301	65	1,544	
1983	January	1,662	240	618	313	118	2,088	84
	February	1,560	305	84	237	76	1,636	81
	March	1,517	166	-51	189	127	1,316	83
	April*	1,531	124	-107	198	116	1,232	86
	AVERAGE	1,568	207	139	234	110	1,569	

<sup>1</sup> Ending stocks for 1973 - 1980 are totals as of December 31.

<sup>2</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>3</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-113, 1980-128, and 1982-103. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

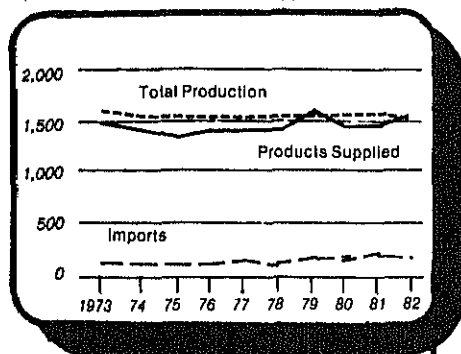
\* See Explanatory Note 9.5.

Geographic coverage: The 50 United States and the District of Columbia.

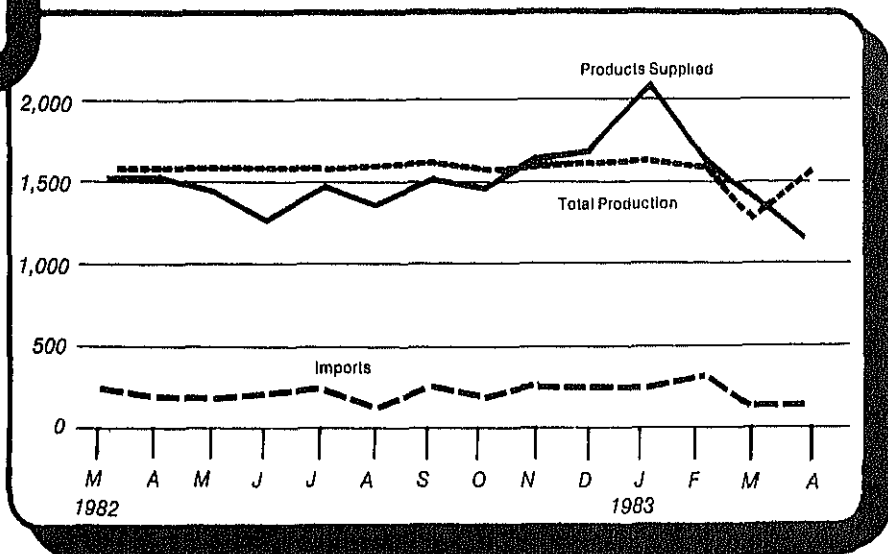
Sources: See "Sources" at the end of this section.

## Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



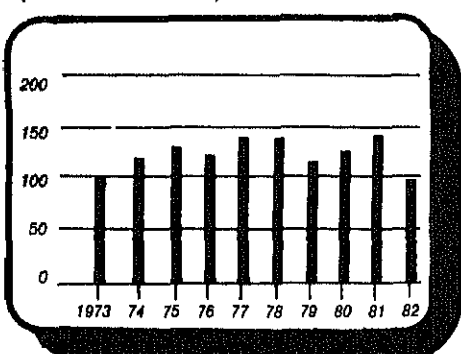
Annual



Monthly

## Liquefied Petroleum Gases Ending Stocks

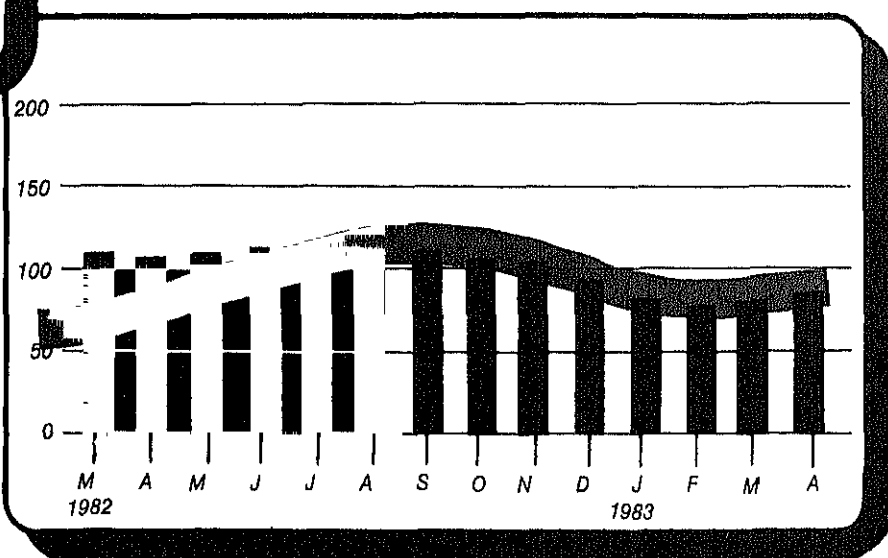
(Millions of Barrels)



Annual

Legend

Average Stock Range<sup>1</sup>



Monthly 23

<sup>1</sup> Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

# Other Petroleum Products<sup>1</sup> Supply and Disposition

		Supply			Disposition			Ending Stocks <sup>2</sup>
		Total Production	Imports	Stock Withdrawal <sup>3</sup>	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	208
1974	AVERAGE	3,558	432	-28	665	174	3,123	<sup>4</sup> 218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	AVERAGE	3,956	210	-23	311	198	3,634	<sup>4</sup> 247
1981	January	3,821	162	80	851	132	3,081	296
	February	3,723	182	-200	538	208	2,958	302
	March	3,722	230	-55	642	210	3,043	304
	April	3,711	230	24	733	192	3,040	303
	May	3,892	229	-58	594	238	3,231	305
	June	3,925	218	-29	656	197	3,261	306
	July	3,852	149	284	791	212	3,282	297
	August	3,876	276	-33	676	219	3,225	298
	September	3,718	285	215	883	176	3,159	291
	October	3,503	241	193	710	227	3,000	285
	November	3,579	262	33	784	154	2,935	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	228	46	723	199	3,088	
1982	January	3,181	240	-102	602	180	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March	3,485	241	-204	734	161	2,627	294
	April	3,394	287	91	801	204	2,767	291
	May	3,296	309	198	823	210	2,769	285
	June	3,481	315	115	815	216	2,879	281
	July	3,578	391	15	862	187	2,935	281
	August	3,519	329	256	841	202	3,060	273
	September	3,442	365	74	767	213	2,901	271
	October	3,472	367	223	901	266	2,896	264
	November	3,464	406	-12	824	269	2,766	264
	December	3,285	314	363	886	275	2,801	<sup>4</sup> 253
	AVERAGE	3,413	319	77	793	211	2,805	
1983	January	3,222	297	-371	570	271	2,307	271
	February	3,270	287	-1	680	232	2,645	271
	March	3,400	298	-94	570	249	2,786	273
	April*	3,363	377	3	596	247	2,901	273
	AVERAGE	3,314	315	-120	602	250	2,658	

<sup>1</sup> Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

<sup>2</sup> Ending Stocks for 1973-1980 are totals as of December 31.

<sup>3</sup> A negative number indicates an increase in stocks and a positive number indicates a decrease.

<sup>4</sup> In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-220, 1980-249, and 1982-259. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

\* See Explanatory Note 9.6.

Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from OPEC Sources<sup>1</sup>

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC <sup>2</sup>	Total OPEC	Total Arab OPEC <sup>3</sup>
	Thousand Barrels per Day										
<b>1973</b>											
<b>AVERAGE</b>	136	164	486	71	213	223	459	1,135	106	2,993	915
<b>1974</b>											
<b>AVERAGE</b>	190	4	461	74	300	469	713	979	88	3,280	752
<b>1975</b>											
<b>AVERAGE</b>	282	232	715	117	390	280	782	702	122	3,601	1,383
<b>1976</b>											
<b>AVERAGE</b>	432	453	1,230	254	539	298	1,025	700	134	5,066	2,424
<b>1977</b>											
<b>AVERAGE</b>	559	723	1,380	335	541	535	1,143	690	287	6,193	3,185
<b>1978</b>											
<b>AVERAGE</b>	649	654	1,144	385	573	555	919	645	226	5,751	2,963
<b>1979</b>											
<b>AVERAGE</b>	636	658	1,356	281	420	304	1,080	690	212	5,837	3,056
<b>1980</b>											
<b>AVERAGE</b>	488	554	1,261	172	348	9	857	481	130	4,300	2,551
<b>1981</b>											
January	341	500	1,284	93	424	0	908	549	27	4,127	2,219
February	381	468	1,122	93	406	0	866	463	92	3,891	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,912
April	263	485	1,034	68	307	0	812	237	99	3,245	1,867
May	393	443	933	17	297	0	664	331	124	3,203	1,796
June	356	380	865	60	367	0	528	248	118	2,922	1,703
July	333	251	1,073	80	340	0	651	466	38	3,233	1,757
August	348	274	1,082	61	377	0	321	523	84	3,070	1,765
September	336	154	1,477	96	371	0	323	359	149	3,264	2,063
October	242	147	1,342	90	427	0	412	389	172	3,220	1,820
November	210	132	1,270	112	353	0	517	535	56	3,184	1,724
December	176	122	1,045	158	400	0	684	411	132	3,129	1,502
<b>AVERAGE</b>	311	319	1,129	81	366	0	820	406	90	3,323	1,848
<b>1982</b>											
January	254	161	877	87	273	0	662	376	128	2,818	1,378
February	139	92	692	79	236	0	579	347	102	2,267	1,044
March	91	37	555	155	200	0	503	399	91	2,032	860
April	85	0	479	122	215	0	427	411	79	1,818	707
May	179	0	601	116	236	0	211	414	54	1,811	897
June	93	0	593	94	215	72	537	361	110	2,075	799
July	122	0	644	123	327	69	910	349	95	2,640	927
August	170	0	489	133	272	27	542	288	134	2,057	807
September	162	0	432	57	191	21	479	514	52	1,907	659
October	249	7	494	61	227	108	291	496	96	2,029	810
November	247	13	489	47	283	34	480	539	115	2,246	795
December	141	0	237	12	265	88	447	399	73	1,661	407
<b>AVERAGE</b>	181	26	548	91	245	35	505	408	94	2,113	840
<b>1983</b>											
January	204	0	282	47	255	43	186	324	43	1,384	533
February	104	0	214	9	217	0	92	371	28	1,035	326
March	63	0	103	0	138	0	121	425	173	1,023	183
April	228	0	180	<sup>(a)</sup>	210	0	186	508	125	1,438	409
<b>AVERAGE</b>	150	0	194	14	206	11	147	407	94	1,223	383

<sup>1</sup> Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil processed in OPEC countries.

<sup>2</sup> Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

<sup>3</sup> Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

<sup>(a)</sup> Less than 500 barrels.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

# Crude Oil and Petroleum Product Imports from Non-OPEC Sources<sup>1</sup>

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico <sup>2</sup>	Virgin Islands <sup>2</sup>	Other	Total
	Thousand Barrels per Day									
<b>1973</b>										
<b>AVERAGE</b>	174	1,325	16	585	255	15	99	329	465	3,263
<b>1974</b>										
<b>AVERAGE</b>	164	1,070	8	511	251	8	90	391	340	2,832
<b>1975</b>										
<b>AVERAGE</b>	152	846	71	332	242	14	90	406	300	2,454
<b>1976</b>										
<b>AVERAGE</b>	118	599	87	275	274	31	88	422	353	2,247
<b>1977</b>										
<b>AVERAGE</b>	171	517	179	211	289	126	105	466	550	2,614
<b>1978</b>										
<b>AVERAGE</b>	160	467	318	229	253	180	94	429	484	2,613
<b>1979</b>										
<b>AVERAGE</b>	147	538	439	231	190	202	92	431	548	2,819
<b>1980</b>										
<b>AVERAGE</b>	78	455	533	225	176	176	88	388	491	2,609
<b>1981</b>										
January	39	543	401	198	150	233	89	494	552	2,701
February	84	546	437	227	163	271	46	481	626	2,881
March	74	472	488	227	93	263	45	370	571	2,603
April	68	412	418	198	139	402	40	365	380	2,423
May	122	365	522	213	105	368	58	344	474	2,573
June	51	353	538	196	124	397	67	262	525	2,513
July	77	382	384	212	178	553	50	206	541	2,583
August	69	378	489	255	123	592	68	184	539	2,698
September	111	423	708	163	169	528	72	265	661	3,100
October	63	449	669	161	121	351	60	303	562	2,739
November	63	547	628	168	108	253	76	294	421	2,557
December	70	501	587	148	125	280	73	367	583	2,714
<b>AVERAGE</b>	74	447	522	197	133	375	62	327	534	2,672
<b>1982</b>										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	533	489	221	120	132	38	354	487	2,424
March	43	435	503	189	118	293	62	307	479	2,429
April	67	357	467	180	166	247	36	266	682	2,468
May	78	416	767	152	95	516	47	302	603	2,974
June	32	462	797	141	129	539	58	322	673	3,153
July	30	527	783	158	111	433	38	369	674	3,122
August	68	435	854	145	106	520	24	320	627	3,099
September	92	484	897	195	89	631	51	270	744	3,453
October	45	456	682	148	109	666	52	262	783	3,202
November	48	547	860	203	90	623	81	334	694	3,480
December	89	561	675	174	102	438	48	336	480	2,901
<b>AVERAGE</b>	56	477	684	173	112	451	50	315	613	2,928
<b>1983</b>										
January	68	536	849	218	73	315	40	299	588	2,988
February	92	592	722	179	81	193	50	192	554	2,655
March	86	488	760	187	78	240	43	162	563	2,606
April	167	452	981	216	85	421	20	183	781	3,306
<b>AVERAGE</b>	103	516	829	200	79	294	38	210	622	2,891

<sup>1</sup> Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

<sup>2</sup> U.S. Possessions.

Totals may not equal sum of components due to independent rounding.

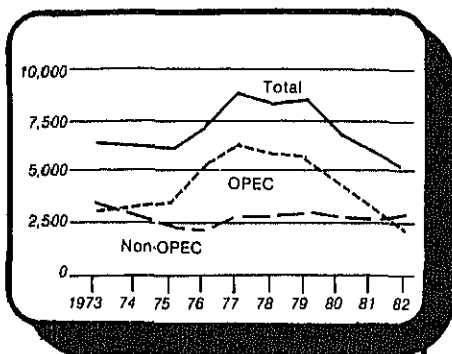
Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

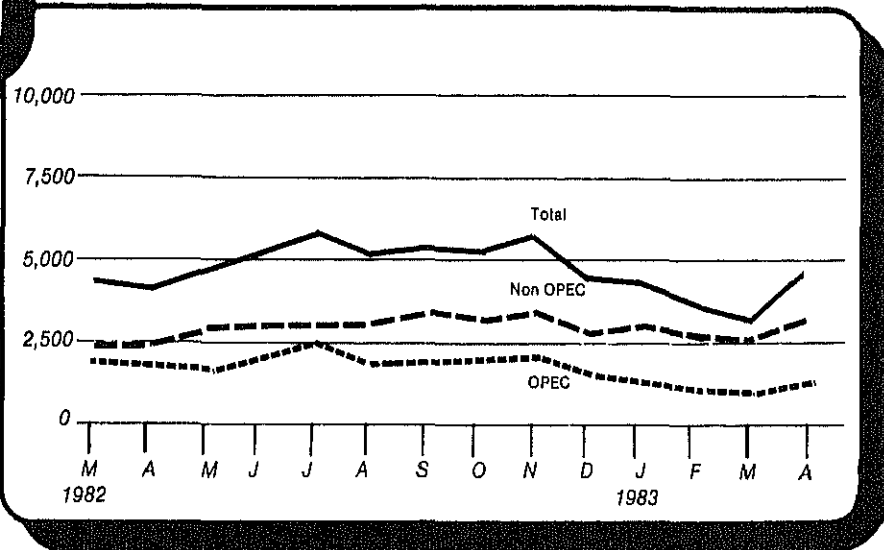
Sources: See "Sources" at the end of this section.

# Crude Oil (including SPR) and Petroleum Products Imports

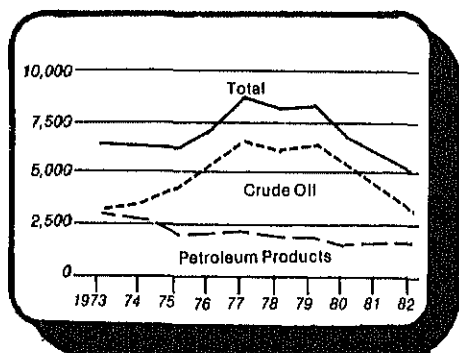
(Thousand Barrels Per Day)



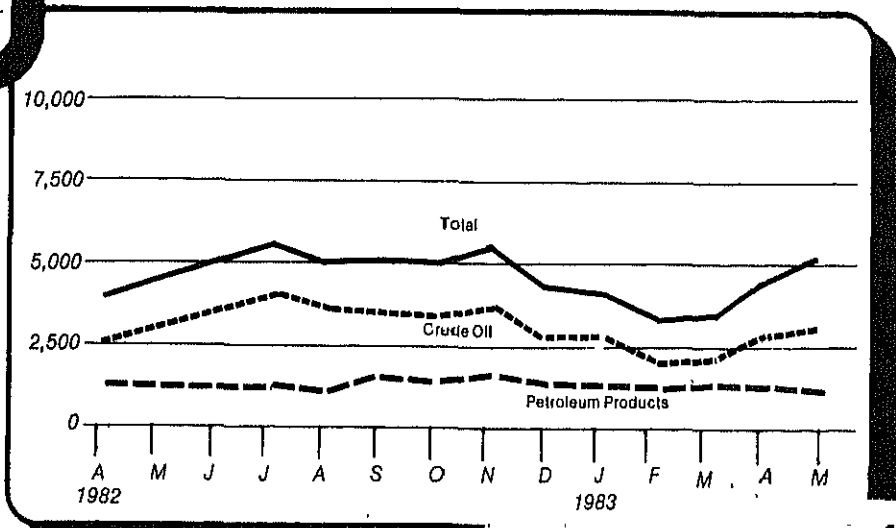
Annual



Monthly



Annual



Monthly 27

# Sources

1. 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, Mineral Industry Surveys.
2. 1977 through 1980: Energy Information Administration, U.S. Department of Energy, *Monthly Petroleum Statistics Report*, (unleaded gasoline category).
3. 1977 through 1980: Energy Information Administration, U.S. Department of Energy, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, Energy Data Reports.
4. January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, *Petroleum Supply Annual*.
5. January 1982 through April 1983: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6).
6. May 1983: Estimates based on EIA weekly data (except domestic crude oil production) (See Explanatory Note 1.1).
7. January 1982 through May 1983: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

# Detailed Statistics





Table 1. U.S. Petroleum Balance, April 1983

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
<b>Crude Oil (Including Lease Condensate)</b>				
<b>Field Production</b>				
(1) Alaska .....	E 51,300	1,710	E 205,757	1,715
(2) Lower 48 States .....	E 209,292	8,976	E 833,965	6,950
(3) Total U.S. ....	E 260,592	8,686	E 1,039,722	8,664
<b>Net Imports</b>				
(4) Imports (Gross Excluding SPR) .....	88,470	2,949	293,716	2,448
(5) SPR Imports .....	6,153	205	24,668	206
(6) Exports .....	2,630	88	18,972	158
(7) Imports (Net Including SPR) .....	91,993	3,066	299,412	2,495
<b>Other Sources</b>				
(8) SPR Withdrawal (+) or Addition (-) .....	-5,905	-197	-23,908	-199
(9) Other Stock Withdrawal (+) or Addition (-) .....	-7,225	-241	-15,771	-131
(10) Product Supplied and Losses .....	-2,087	-70	-8,041	-67
(11) Unaccounted for 1 .....	5,715	191	29,082	242
(12) Total Other Sources .....	-9,502	-317	-18,638	-155
(13) Crude Input to Refineries .....	343,083	11,436	1,320,496	11,004
(13) = (3) + (7) + (12)				
<b>Natural Gas Plant Liquids (NGPL)</b>				
(14) Field Production .....	45,082	1,502	189,006	1,575
(15) Imports 2 .....	154	5	1,014	8
(16) Stock Withdrawal (+) or Addition (-) 2 .....	-32	-1	-2,261	-19
(17) Total NGPL Supply .....	45,184	1,506	187,759	1,565
<b>Other Liquids</b>				
<b>Unfinished Oils and Gasoline Blending Components, Total</b>				
(18) Stock Withdrawal (+) or Addition (-) .....	-300	-10	-4,842	-40
(19) Imports .....	8,102	270	25,588	213
(20) Other Hydrocarbons and Alcohol New Supply (Field Production) .....	1,221	41	5,568	46
(21) Refinery Processing Gain 1 .....	12,982	433	54,987	458
(22) Crude Oil Product Supplied .....	2,037	68	7,806	65
(23) Total Other Liquids .....	24,042	801	89,107	743
(23) = (18) through (22)				
(24) Total Production of Products 3 .....	412,310	13,744	1,597,362	13,311
(24) = (13) + (17) + (23)				
<b>Net Imports of Refined Products 3</b>				
(25) Imports (Gross) .....	39,445	1,315	148,716	1,239
(26) Exports .....	21,642	721	84,529	704
(27) Imports (Net) .....	17,803	593	64,187	535
(28) Total New Supply of Products ... ..	430,113	14,337	1,661,549	13,846
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3 .....	13,244	441	133,135	1,109
(30) Total Petroleum Products Supplied for Domestic Use .....	443,357	14,779	1,794,684	14,956
(30) = (28) + (29)				
(31) Finished Motor Gasoline .....	195,022	6,501	761,198	6,343
(32) Distillate Fuel Oil .....	81,362	2,713	336,124	2,801
(33) Residual Fuel Oil .....	40,921	1,364	182,283	1,519
(34) Liquefied Petroleum Gases .....	36,975	1,232	188,310	1,589
(35) Other 4 .....	87,022	2,901	318,964	2,658
(36) Crude Oil .....	2,037	68	7,806	65
(37) Total Product Supplied .....	443,358	14,779	1,794,685	14,956
(37) = (31) through (36)				
<b>Ending Stocks, All Oils</b>				
(38) Crude Oil and Lease Condensate (Excluding SPR) .....	365,815	---	365,815	---
(39) Strategic Petroleum Reserve (SPR) .....	317,735	---	317,735	---
(40) Unfinished Oils .....	114,100	---	114,100	---
(41) Gasoline Blending Components .....	38,564	---	38,564	---
(42) Natural Gasoline and Unfractionated Stream .....	13,729	---	13,729	---
(43) Finished Refined Products 3 .....	525,721	---	525,721	---
(44) Total Stocks .....	1,375,664	---	1,375,664	---

1 A balancing item.

2 Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.

3 For products included see Explanatory Note 9 7.

4 Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

E = Estimated.

--- Not Applicable.

Note: Totals may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9 7

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Losses	Refinery Inputs	Exports		Products Supplied
<b>Crude Oil (including lease condensate)</b>	<b>E 260,592</b>	<b>0</b>	<b>94,623</b>	<b>-13,130</b>	<b>5,715</b>	<b>50</b>	<b>343,083</b>	<b>2,630</b>	<b>2,037</b>	<b>683,550</b>
<b>Natural Gas Liquids and LRGs</b>	<b>44,549</b>	<b>9,696</b>	<b>3,860</b>	<b>-3,243</b>	<b>0</b>	<b>0</b>	<b>11,870</b>	<b>3,487</b>	<b>39,605</b>	<b>99,749</b>
Natural Gasoline and Isopentane	6,750	0	0	858	0	0	4,979	0	2,629	5,510
Unfractionated Stream	1,843	0	0	-1,758	0	0	85	0	0	7,789
Plant Condensate	-165	0	154	868	0	0	856	0	1	430
<b>Liquefied Petroleum Gases</b>	<b>36,221</b>	<b>9,696</b>	<b>3,706</b>	<b>-3,211</b>	<b>0</b>	<b>0</b>	<b>5,950</b>	<b>3,487</b>	<b>36,975</b>	<b>86,020</b>
Ethane	7,333	546	923	157	0	0	96	(s)	8,862	5,161
Propane	12,647	8,148	1,466	676	0	0	151	2,629	20,158	40,744
Butane	6,074	802	946	-2,425	0	0	3,259	858	1,280	17,027
Butane-Propane Mixtures	163	190	371	-273	0	0	298	0	153	1,457
Ethane-Propane Mixtures	7,003	0	0	-491	0	0	0	0	6,512	13,576
Isobutane	3,001	10	0	-855	0	0	2,146	0	10	8,055
<b>Other Liquids</b>	<b>1,221</b>	<b>0</b>	<b>8,102</b>	<b>-300</b>	<b>0</b>	<b>0</b>	<b>11,968</b>	<b>0</b>	<b>-2,945</b>	<b>152,664</b>
Other Hydrocarbons and Alcohol	1,221	0	0	-2	0	0	1,219	0	0	286
Unfinished Oils	0	0	7,437	-2,838	0	0	5,747	0	-1,148	114,100
Motor Gasoline Blending Components	0	0	665	2,453	0	0	4,978	0	-1,860	37,893
Aviation Gasoline Blending Components	0	0	0	87	0	0	24	0	63	385
<b>Finished Petroleum Products</b>	<b>414</b>	<b>370,207</b>	<b>35,739</b>	<b>16,455</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,155</b>	<b>404,660</b>	<b>439,701</b>
Finished Motor Gasoline	104	185,955	8,203	797	0	0	0	38	195,022	182,909
Finished Leaded Motor Gasoline	72	84,486	5,028	324	0	0	0	38	89,872	90,968
Finished Unleaded Motor Gasoline	32	101,469	3,176	473	0	0	0	0	105,150	91,941
Finished Aviation Gasoline	68	608	1	97	0	0	0	0	774	2,429
Naphtha-Type Jet Fuel	0	5,669	(s)	961	0	0	0	200	6,431	6,401
Kerosene-Type Jet Fuel	1	23,750	453	1,032	0	0	0	17	25,219	33,849
Kerosene	3	2,710	560	631	0	0	0	1	3,903	8,307
Distillate Fuel Oil	1	65,070	2,185	15,534	0	0	0	1,408	81,382	103,183
Residual Fuel Oil	0	28,247	22,284	-299	0	0	0	9,311	40,921	46,614
Naphtha < 400 Deg. for Petro. Feed, Use	0	4,391	87	-225	0	0	0	130	4,123	2,246
Other Oils > 400 Deg. for Petro. Feed, Use	0	8,566	2	429	0	0	0	599	8,398	1,756
Special Naphthas	109	1,688	407	-83	0	0	0	35	2,086	3,126
Lubricants	0	4,210	153	451	0	0	0	644	4,170	12,653
Waxes	0	424	26	1	0	0	0	18	434	770
Petroleum Coke	0	11,418	0	-35	0	0	0	5,710	5,673	6,618
Asphalt and Road Oil	0	10,658	80	-2,945	0	0	0	11	7,781	27,299
Still Gas	0	15,374	0	0	0	0	0	0	15,374	0
Miscellaneous Products	128	1,469	1,298	109	0	0	0	34	2,971	1,541
<b>Total</b>	<b>306,876</b>	<b>379,903</b>	<b>142,325</b>	<b>-218</b>	<b>5,715</b>	<b>50</b>	<b>366,921</b>	<b>24,272</b>	<b>443,357</b>	<b>1,375,664</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

(s) Less than 500 Barrels per day.

E = Estimated.

Note. Totals may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January-April 1983  
(Thousands of Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
<b>Crude Oil (including lease condensate)</b>	<b>E 1,039,722</b>	<b>0</b>	<b>318,384</b>	<b>-39,679</b>	<b>29,082</b>	<b>235</b>	<b>1,320,496</b>	<b>18,972</b>	<b>7,806</b>	<b>683,550</b>
<b>Natural Gas Liquids and LRGs</b>	<b>187,526</b>	<b>34,889</b>	<b>25,834</b>	<b>14,437</b>	<b>0</b>	<b>0</b>	<b>53,200</b>	<b>13,204</b>	<b>196,283</b>	<b>99,749</b>
Natural Gasoline and Isopentane	28,269	0	235	477	0	0	21,017	0	7,964	5,510
Unfractionated Stream	3,919	0	0	-3,750	0	0	169	0	0	7,789
Plant Condensate	2,086	0	778	1,012	0	0	3,868	0	8	430
Liquefied Petroleum Gases	153,252	34,889	24,821	16,698	0	0	28,146	13,204	188,310	86,020
Ethane	30,444	1,509	5,577	810	0	0	312	(9)	38,028	5,161
Propane	53,975	31,446	6,624	17,493	0	0	517	8,642	100,379	40,744
Butane	24,769	1,819	6,040	-345	0	0	15,295	4,562	12,427	17,027
Butane-Propane Mixtures	741	81	2,348	668	0	0	795	0	3,043	1,457
Ethane-Propane Mixtures	31,873	0	4,232	-2,284	0	0	0	0	33,811	13,576
Isobutane	11,450	34	0	366	0	0	11,227	0	623	8,055
<b>Other Liquids</b>	<b>5,568</b>	<b>0</b>	<b>25,588</b>	<b>-4,842</b>	<b>0</b>	<b>0</b>	<b>47,208</b>	<b>0</b>	<b>-20,894</b>	<b>152,664</b>
Other Hydrocarbons and Alcohol	5,568	0	0	25	0	0	5,593	0	0	286
Unfinished Oils	0	0	22,026	-8,823	0	0	24,608	0	-11,405	114,100
Motor Gasoline Blending Components	0	0	3,562	3,849	0	0	16,301	0	-8,890	37,893
Aviation Gasoline Blending Components	0	0	0	107	0	0	706	0	-599	385
<b>Finished Petroleum Products</b>	<b>1,481</b>	<b>1,441,002</b>	<b>123,895</b>	<b>116,437</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71,325</b>	<b>1,511,490</b>	<b>439,701</b>
Finished Motor Gasoline	359	718,862	23,133	19,628	0	0	0	784	761,198	182,909
Finished Leaded Motor Gasoline	253	324,446	13,632	11,187	0	0	0	784	348,734	90,968
Finished Unleaded Motor Gasoline	106	394,416	9,501	8,441	0	0	0	0	412,464	91,941
Finished Aviation Gasoline	159	2,344	210	-115	0	0	0	0	2,598	2,429
Naphtha-Type Jet Fuel	0	25,006	(9)	788	0	0	0	200	25,594	6,401
Kerosene-Type Jet Fuel	1	96,048	2,608	-1,848	0	0	0	539	96,270	33,849
Kerosene	12	14,488	715	2,485	0	0	0	4	17,696	8,307
Distillate Fuel Oil	7	258,341	6,913	82,396	0	0	0	11,533	336,124	103,183
Residual Fuel Oil	0	107,035	82,657	21,615	0	0	0	29,025	182,283	46,614
Naphtha < 400 Deg. for Petro. Feed. Use	0	15,949	1,471	-279	0	0	0	425	16,716	2,246
Other Oils > 400 Deg. for Petro. Feed. Use	0	32,614	6	424	0	0	0	1,668	31,376	1,756
Special Naphthas	303	6,274	1,895	348	0	0	0	363	8,457	3,126
Lubricants	0	16,099	934	528	0	0	0	1,847	15,714	12,653
Waxes	0	1,693	121	16	0	0	0	80	1,750	770
Petroleum Coke	0	47,164	0	103	0	0	0	24,601	22,666	6,618
Asphalt and Road Oil	0	31,330	293	-10,030	0	0	0	134	21,458	27,299
Still Gas	0	60,785	0	0	0	0	0	0	60,785	0
Miscellaneous Products	640	6,970	2,940	378	0	0	0	123	10,806	1,541
<b>Total</b>	<b>1,234,297</b>	<b>1,475,891</b>	<b>493,701</b>	<b>86,353</b>	<b>29,082</b>	<b>235</b>	<b>1,420,994</b>	<b>103,500</b>	<b>1,794,685</b>	<b>1,375,664</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

(9) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.  
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,686	0	3,154	-438	191	2	11,436	88	68
Natural Gas Liquids and LRGs	1,488	323	129	-108	0	0	396	116	1,320
Natural Gasoline and Isopentane	225	0	0	29	0	0	166	0	88
Unfractionated Stream	61	0	0	-59	0	0	3	0	(s)
Plant Condensate	-5	0	5	29	0	0	29	0	(s)
Liquefied Petroleum Gases	1,207	323	124	-107	0	0	198	116	1,232
Ethane	244	18	31	5	0	0	3	(s)	295
Propane	422	272	49	23	0	0	5	88	672
Butane	202	27	32	-81	0	0	109	29	43
Butane-Propane Mixtures	5	6	12	-9	0	0	10	0	5
Ethane-Propane Mixtures	233	0	0	-16	0	0	0	0	217
Isobutane	100	(s)	0	-28	0	0	72	0	(s)
Other Liquids	41	0	270	-10	0	0	399	0	-98
Other Hydrocarbons and Alcohol	41	0	0	(s)	0	0	41	0	0
Unfinished Oils	0	0	248	-95	0	0	192	0	-38
Motor Gasoline Blending Components	0	0	22	82	0	0	166	0	-62
Aviation Gasoline Blending Components	0	0	0	3	0	0	1	0	2
Finished Petroleum Products	14	12,340	1,191	549	0	0	0	605	13,489
Finished Motor Gasoline	3	6,198	273	27	0	0	0	1	6,501
Finished Leaded Motor Gasoline	2	2,816	168	11	0	0	0	1	2,996
Finished Unleaded Motor Gasoline	1	3,382	106	16	0	0	0	0	3,505
Finished Aviation Gasoline	2	20	(s)	3	0	0	0	0	26
Naphtha-Type Jet Fuel	0	189	(s)	32	0	0	0	7	214
Kerosene-Type Jet Fuel	(s)	792	15	34	0	0	0	1	841
Kerosene	(s)	90	19	21	0	0	0	(s)	130
Distillate Fuel Oil	(s)	2,169	73	518	0	0	0	47	2,713
Residual Fuel Oil	0	942	743	-10	0	0	0	310	1,364
Naphtha < 400 Deg. for Petro Feed Use	0	146	3	-7	0	0	0	4	137
Other Oils > 400 Deg. for Petro. Feed Use	0	286	(s)	14	0	0	0	20	280
Special Naphthas	4	56	14	-3	0	0	0	1	70
Lubricants	0	140	5	15	0	0	0	21	139
Waxes	0	14	1	(s)	0	0	0	1	14
Petroleum Coke	0	381	0	-1	0	0	0	190	189
Asphalt and Road Oil	0	355	3	-98	0	0	0	(s)	259
Still Gas	0	512	0	0	0	0	0	0	512
Miscellaneous Products	4	49	43	4	0	0	0	1	99
Total	10,229	12,663	4,744	-7	191	2	12,231	809	14,779

<sup>1</sup> Unaccounted for crude oil is a balancing item.

(s) Less than 500 Barrels per day.

E = Estimated.

Note: Totals may not equal sum of components due to independent rounding. Sources and estimation procedures. See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-April 1983  
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,664	0	2,653	-331	242	2	11,004	158	65
Natural Gas Liquids and LRGs	1,563	291	215	120	0	0	443	110	1,636
Natural Gasoline and Isopentane	236	0	2	4	0	0	175	0	66
Unfractionated Stream	33	0	0	-31	0	0	1	0	(s)
Plant Condensate	17	0	6	8	0	0	32	0	(s)
Liquefied Petroleum Gases	1,277	291	207	139	0	0	235	110	1,569
Ethane	254	13	46	7	0	0	3	(s)	317
Propane	450	262	55	146	0	0	4	72	836
Butane	206	15	50	-3	0	0	127	38	104
Butane-Propane Mixtures	6	1	20	6	0	0	7	0	25
Ethane-Propane Mixtures	266	0	35	-19	0	0	0	0	282
Isobutane	95	(s)	0	3	0	0	94	0	5
Other Liquids	46	0	213	-40	0	0	393	0	-174
Other Hydrocarbons and Alcohol	46	0	0	(s)	0	0	47	0	0
Unfinished Oils	0	0	184	-74	0	0	205	0	-95
Motor Gasoline Blending Components	0	0	30	32	0	0	136	0	-74
Aviation Gasoline Blending Components	0	0	0	1	0	0	6	0	-5
Finished Petroleum Products	12	12,008	1,032	970	0	0	0	594	13,429
Finished Motor Gasoline	3	5,991	193	164	0	0	0	7	6,343
Finished Leaded Motor Gasoline	2	2,704	114	93	0	0	0	7	2,906
Finished Unleaded Motor Gasoline	1	3,287	79	70	0	0	0	0	3,437
Finished Aviation Gasoline	1	20	2	-1	0	0	0	0	22
Naphtha-Type Jet Fuel	0	208	(s)	7	0	0	0	2	213
Kerosene-Type Jet Fuel	(s)	800	22	-15	0	0	0	4	802
Kerosene	(s)	121	6	21	0	0	0	(s)	147
Distillate Fuel Oil	(s)	2,153	58	687	0	0	0	96	2,801
Residual Fuel Oil	0	892	689	180	0	0	0	242	1,519
Naphtha < 400 Deg for Petro. Feed Use	0	133	12	-2	0	0	0	4	139
Other Oils > 400 Deg. for Petro. Feed Use	0	272	(s)	4	0	0	0	14	261
Special Naphthas	3	52	16	3	0	0	0	3	70
Lubricants	0	134	8	4	0	0	0	15	131
Waxes	0	14	1	(s)	0	0	0	1	15
Petroleum Coke	0	393	0	1	0	0	0	205	189
Asphalt and Road Oil	0	261	2	-84	0	0	0	1	179
Still Gas	0	507	0	0	0	0	0	0	507
Miscellaneous Products	5	58	25	3	0	0	0	1	90
Total	10,286	12,299	4,114	720	242	2	11,841	863	14,956

<sup>1</sup> Unaccounted for crude oil is a balancing item.

(s) Less than 500 barrels per day.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 2,427	0	23,909	-480	1,456	4,533	-1	31,846	0	0	16,391
Natural Gas Liquids and LRGs	825	1,315	325	-85	0	1,937	0	161	146	4,010	4,208
Liquefied Petroleum Gases	572	1,315	293	-76	0	1,937	0	126	146	3,770	4,164
Other Products <sup>2</sup>	253	0	31	-9	0	0	0	35	0	240	44
Other Liquids	105	0	2,727	-64	0	84	0	3,534	0	-682	17,255
Other Hydrocarbons and Alcohol	105	0	0	6	0	0	0	111	0	0	44
Unfinished Oils	0	0	2,165	81	0	84	0	2,926	0	-596	13,050
Motor Gasoline Blending Components	0	0	582	-156	0	0	0	497	0	-91	4,161
Aviation Gasoline Blending Components	0	0	0	5	0	0	0	0	0	5	0
Finished Petroleum Products	88	36,104	29,017	1,150	0	71,755	0	0	527	137,586	133,800
Finished Motor Gasoline	88	17,713	6,848	-5,229	0	44,473	0	0	2	63,691	56,640
Finished Leaded Motor Gasoline	57	7,194	3,923	-2,995	0	18,080	0	0	2	26,258	27,719
Finished Unleaded Motor Gasoline	31	10,519	2,724	-2,234	0	26,393	0	0	0	37,433	28,921
Finished Aviation Gasoline	0	23	1	62	0	121	0	0	0	207	420
Naphtha-Type Jet Fuel	0	325	0	593	0	555	0	0	0	1,473	385
Kerosene-Type Jet Fuel	0	916	314	-338	0	9,370	0	0	0	10,262	9,406
Kerosene	0	402	296	17	0	379	0	0	(S)	1,093	3,731
Distillate Fuel Oil	0	7,368	1,958	6,303	0	13,865	0	0	2	29,491	31,809
Residual Fuel Oil	0	3,362	19,534	334	0	1,622	0	0	(S)	24,852	20,271
Naphtha and Other Oils for Petrochem.											
Feedstock	0	364	6	21	0	55	0	0	89	357	40
Special Naphthas	0	11	112	172	0	295	0	0	3	587	560
Lubricants	0	642	78	-67	0	478	0	0	216	915	3,402
Waxes	0	94	5	2	0	3	0	0	4	100	169
Petroleum Coke	0	1,096	0	-159	0	0	0	0	199	738	744
Asphalt and Road Oil	0	1,945	62	-569	0	198	0	0	1	1,635	5,891
Still Gas	0	1,633	0	0	0	0	0	0	0	1,633	0
Miscellaneous Products	0	210	5	8	0	341	0	0	11	553	332
Total	3,445	37,419	55,977	521	1,456	78,309	-1	35,541	673	140,915	171,654

<sup>1</sup> Unaccounted for crude oil is a balancing item.<sup>2</sup> Includes natural gasoline, isopentane, unrefined stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
<b>Crude Oil (including lease condensate)</b>	E 30,561	0	16,953	1,736	32,057	762	7	81,669	393	0	81,164
<b>Natural Gas Liquids and LRGs</b>	7,944	2,347	2,250	511	0	2,530	0	3,701	705	11,177	31,783
Liquefied Petroleum Gases	8,053	2,347	2,250	-39	0	1,764	0	2,229	705	11,442	28,160
Other Products <sup>2</sup>	-109	0	0	550	0	766	0	1,472	0	-265	3,623
<b>Other Liquids</b>	411	0	743	-1,833	0	1,080	0	-406	0	807	29,314
Other Hydrocarbons and Alcohol	411	0	0	-11	0	0	0	400	0	0	123
Unfinished Oils	0	0	640	-2,703	0	119	0	-2,467	0	523	20,644
Motor Gasoline Blending Components	0	0	103	861	0	961	0	1,641	0	284	8,446
Aviation Gasoline Blending Components	0	0	0	20	0	0	0	20	0	0	101
<b>Finished Petroleum Products</b>	8	85,570	1,270	6,763	0	11,341	0	0	942	104,010	122,981
Finished Motor Gasoline	0	51,894	363	2,047	0	7,640	0	0	1	61,944	56,918
Finished Leaded Motor Gasoline	0	25,844	283	865	0	3,785	0	0	1	30,777	29,518
Finished Unleaded Motor Gasoline	0	26,050	80	1,182	0	3,855	0	0	0	31,167	27,400
Finished Aviation Gasoline	0	86	0	54	0	75	0	0	0	215	654
Naphtha-Type Jet Fuel	0	855	0	3	0	289	0	0	0	1,147	1,744
Kerosene-Type Jet Fuel	0	4,191	0	-334	0	887	0	0	0	4,754	7,244
Kerosene	0	183	0	266	0	19	0	0	(5)	468	2,237
Distillate Fuel Oil	0	15,250	34	5,727	0	2,642	0	0	0	23,653	33,250
Residual Fuel Oil	0	2,128	763	146	0	-386	0	0	0	2,651	3,441
Naphtha and Other Oils for Petro Feed.	0	486	48	29	0	34	0	0	6	591	257
Special Naphthas	0	301	35	79	0	72	0	0	1	486	479
Lubricants	0	741	4	240	0	-11	0	0	11	962	2,191
Waxes	0	45	1	-4	0	0	0	0	1	41	80
Petroleum Coke	0	2,928	0	47	0	0	0	0	918	2,057	1,813
Asphalt and Road Oil	0	3,108	7	-1,545	0	234	0	0	2	1,802	12,507
Still Gas	0	3,211	0	0	0	0	0	0	0	3,211	0
Miscellaneous Products	8	163	15	8	0	-164	0	0	2	28	166
<b>Total</b>	<b>38,924</b>	<b>87,917</b>	<b>21,216</b>	<b>7,177</b>	<b>32,057</b>	<b>15,713</b>	<b>7</b>	<b>84,964</b>	<b>2,040</b>	<b>115,994</b>	<b>265,242</b>

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Includes natural gasoline, isopentane, unrefractionated stream, and plant condensate.

(s) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding  
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 125,427	0	48,562	-13,773	-21,847	21,034	8	159,371	0	24	483,173
Natural Gas Liquids and LRGs	32,672	4,629	371	-3,617	0	-3,731	0	6,948	2,498	20,878	61,055
Liquefied Petroleum Gases	26,217	4,629	371	-3,061	0	-3,840	0	2,865	2,498	16,953	51,654
Other Products <sup>2</sup>	6,455	0	0	-556	0	109	0	4,083	0	1,925	9,401
Other Liquids	408	0	4,605	-1,558	0	-1,164	0	6,345	0	-4,054	68,801
Other Hydrocarbons and Alcohol	408	0	0	4	0	0	0	412	0	0	112
Unfinished Oils	0	0	4,605	-2,114	0	-203	0	4,066	0	-1,778	51,938
Motor Gasoline Blending Components	0	0	0	502	0	-961	0	1,875	0	-2,334	16,501
Aviation Gasoline Blending Components	0	0	0	50	0	0	0	-8	0	58	250
Finished Petroleum Products	299	173,528	3,595	4,474	0	-86,566	0	0	7,814	87,516	118,476
Finished Motor Gasoline	0	81,741	161	3,054	0	-53,734	0	0	11	31,211	46,196
Finished Leaded Motor Gasoline	0	34,951	(S)	2,244	0	-22,715	0	0	11	14,469	21,982
Finished Unleaded Motor Gasoline	0	46,790	161	810	0	-31,019	0	0	0	16,742	24,214
Finished Aviation Gasoline	68	254	0	-57	0	-214	0	0	0	51	720
Naphtha-Type Jet Fuel	0	3,016	0	12	0	-1,052	0	0	0	1,976	2,488
Kerosene-Type Jet Fuel	1	11,902	30	1,009	0	-10,984	0	0	0	1,958	10,705
Kerosene	3	2,057	264	268	0	-398	0	0	(S)	2,194	2,041
Distillate Fuel Oil	1	31,106	5	1,225	0	-17,184	0	0	(S)	15,153	26,023
Residual Fuel Oil	0	11,850	1,566	-869	0	-1,509	0	0	3,391	7,847	13,419
Naphtha and Other Oils for Petro Feed	0	11,362	35	130	0	-94	0	0	627	10,806	3,063
Special Naphthas	109	1,234	245	-271	0	-374	0	0	29	914	1,752
Lubricants	0	2,403	(S)	250	0	-435	0	0	337	1,881	5,694
Waxes	0	213	18	9	0	-3	0	0	10	227	446
Petroleum Coke	0	4,509	0	38	0	0	0	0	3,390	1,157	886
Asphalt and Road Oil	0	3,746	0	-559	0	-432	0	0	(S)	2,755	4,229
Still Gas	0	7,207	0	0	0	0	0	0	0	7,207	0
Miscellaneous Products	117	928	1,270	35	0	-153	0	0	17	2,180	814
Total	158,806	178,157	57,132	-14,474	-21,847	-70,427	8	172,664	10,312	104,364	731,505

<sup>1</sup> Unaccounted for crude oil is a balancing item.

<sup>2</sup> Includes natural gasoline, isopentane, unrefractionated stream, and plant condensate

(S) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply					Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 16,929	0	853	-15	-6,493	0	0	11,265	0	9	16,169
Natural Gas Liquids and LRGs	2,161	126	399	-54	0	-736	0	384	1	1,511	1,157
Liquefied Petroleum Gases	785	126	276	-26	0	139	0	265	1	1,034	548
Other Products <sup>2</sup>	1,376	0	123	-28	0	-875	0	119	0	477	609
Other Liquids	8	0	0	171	0	0	0	-260	0	439	5,339
Other Hydrocarbons and Alcohol	8	0	0	0	0	0	0	8	0	0	0
Unfinished Oils	0	0	0	-240	0	0	0	-767	0	527	3,014
Motor Gasoline Blending Components	0	0	0	411	0	0	0	499	0	-86	2,325
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	19	11,531	13	464	0	-179	0	0	4	11,843	13,489
Finished Motor Gasoline	16	6,302	7	53	0	-229	0	0	0	6,149	5,556
Finished Leaded Motor Gasoline	15	3,993	7	-39	0	-188	0	0	0	3,788	3,631
Finished Unleaded Motor Gasoline	1	2,309	0	92	0	-41	0	0	0	2,361	1,925
Finished Aviation Gasoline	0	25	0	-10	0	18	0	0	0	33	67
Naphtha-Type Jet Fuel	0	311	0	84	0	-138	0	0	0	257	259
Kerosene-Type Jet Fuel	0	624	0	51	0	456	0	0	0	1,131	723
Kerosene	0	0	0	10	0	0	0	0	0	10	29
Distillate Fuel Oil	0	2,811	4	515	0	-286	0	0	0	3,044	2,751
Residual Fuel Oil	0	275	0	-8	0	0	0	0	0	267	453
Naphtha and Other Oils for Petro Feed	0	1	0	-1	0	0	0	0	2	-2	2
Special Naphthas	0	4	0	0	0	0	0	0	1	3	10
Lubricants	0	36	0	-14	0	0	0	0	1	21	74
Waxes	0	11	0	2	0	0	0	0	0	13	5
Petroleum Coke	0	238	0	-51	0	0	0	0	0	187	882
Asphalt and Road Oil	0	477	0	-168	0	0	0	0	0	309	2,677
Still Gas	0	394	0	0	0	0	0	0	0	394	0
Miscellaneous Products	3	22	1	1	0	0	0	0	0	26	1
Total	19,117	11,657	1,265	566	-6,493	-915	0	11,389	5	13,802	36,154

<sup>1</sup> Unaccounted for crude oil is a balancing item

<sup>2</sup> Includes natural gasoline, isopentane, unfractionated stream, and plant condensate.

(S) Less than 500 barrels.

E Estimated.

Note: Total may not equal sum of components due to independent rounding Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, April 1983  
(Thousands of Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil <sup>1</sup>	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
<b>Crude Oil (including lease condensate)</b>	<b>E 85,248</b>	<b>0</b>	<b>4,346</b>	<b>-598</b>	<b>542</b>	<b>-26,329</b>	<b>36</b>	<b>58,932</b>	<b>2,237</b>	<b>2,004</b>	<b>86,653</b>
<b>Natural Gas Liquids and LRGs</b>	<b>1,047</b>	<b>1,279</b>	<b>516</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>676</b>	<b>138</b>	<b>2,029</b>	<b>1,546</b>
Liquefied Petroleum Gases	594	1,279	516	-9	0	0	0	465	138	1,776	1,494
Other Products <sup>2</sup>	453	0	0	11	0	0	0	211	0	253	52
<b>Other Liquids</b>	<b>289</b>	<b>0</b>	<b>27</b>	<b>2,984</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,755</b>	<b>0</b>	<b>545</b>	<b>31,955</b>
Other Hydrocarbons and Alcohol	289	0	0	-1	0	0	0	288	0	0	7
Unfinished Oils	0	0	27	2,138	0	0	0	1,989	0	176	25,454
Motor Gasoline Blending Components	0	0	0	835	0	0	0	466	0	369	6,460
Aviation Gasoline Blending Components	0	0	0	12	0	0	0	12	0	0	34
<b>Finished Petroleum Products</b>	<b>0</b>	<b>63,474</b>	<b>1,845</b>	<b>3,604</b>	<b>0</b>	<b>3,649</b>	<b>0</b>	<b>0</b>	<b>8,868</b>	<b>63,704</b>	<b>50,955</b>
Finished Motor Gasoline	0	28,305	1,024	872	0	1,850	0	0	24	32,027	17,599
Finished Leaded Motor Gasoline	0	12,504	814	249	0	1,038	0	0	24	14,581	8,118
Finished Unleaded Motor Gasoline	0	15,801	210	623	0	812	0	0	0	17,445	9,481
Finished Aviation Gasoline	0	220	0	48	0	0	0	0	0	268	568
Naphtha-Type Jet Fuel	0	1,162	(s)	269	0	346	0	0	200	1,578	1,525
Kerosene-Type Jet Fuel	0	6,117	108	644	0	261	0	0	17	7,113	5,771
Kerosene	0	68	0	70	0	0	0	0	(s)	138	269
Distillate Fuel Oil	0	8,535	184	1,764	0	963	0	0	1,406	10,040	9,350
Residual Fuel Oil	0	10,632	420	-102	0	273	0	0	5,920	5,303	9,030
Naphtha and Other Oils for Petro. Feed	0	744	0	25	0	5	0	0	6	768	640
Special Naphthas	0	138	15	-63	0	7	0	0	1	96	325
Lubricants	0	388	72	42	0	-32	0	0	78	392	1,292
Waxes	0	61	3	-8	0	0	0	0	3	53	70
Petroleum Coke	0	2,647	0	90	0	0	0	0	1,203	1,534	2,293
Asphalt and Road Oil	0	1,382	11	-104	0	0	0	0	8	1,281	1,995
Still Gas	0	2,929	0	0	0	0	0	0	0	2,929	0
Miscellaneous Products	0	146	8	57	0	-24	0	0	4	184	228
<b>Total</b>	<b>86,584</b>	<b>64,753</b>	<b>6,734</b>	<b>5,992</b>	<b>542</b>	<b>-22,680</b>	<b>36</b>	<b>62,363</b>	<b>11,243</b>	<b>68,282</b>	<b>171,109</b>

1 Unaccounted for crude oil is a balancing item.

2 Includes natural gasoline, isopentane, unrefractionated stream, and plant condensate.

(s) Less than 500 barrels

E Estimated

Note Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Current Available Month,<sup>1</sup> February 1983  
(Thousands of Barrels)

PAD District and State	Production	
	Total	Daily Average
<b>PAD District I</b>		
Florida .....	1,767	63
New York .....	E 82	2
Pennsylvania .....	E 326	12
Virginia .....	4	(s)
West Virginia .....	259	9
Adjustment 2 .....	-88	-3
<b>Total PAD District I .....</b>	<b>E 2,330</b>	<b>83</b>
<b>PAD District II</b>		
Illinois .....	2,319	83
Indiana .....	450	16
Kansas .....	5,462	195
Kentucky .....	649	23
Michigan .....	2,514	90
Missouri .....	E 15	1
Nebraska .....	509	18
North Dakota .....	3,983	142
Ohio .....	E 1,117	40
Oklahoma .....	13,337	476
South Dakota .....	89	3
Tennessee .....	76	3
Adjustment 2 .....	-1,607	-57
<b>Total PAD District II .....</b>	<b>E 28,913</b>	<b>1,033</b>
<b>PAD District III</b>		
Alabama .....	1,511	54
Arkansas .....	E 1,446	52
Louisiana .....		
Gulf Coast .....	E 32,894	1,178
Rest Of State .....	2,670	95
Total Louisiana .....	E 35,564	1,274
Mississippi .....	2,418	86
New Mexico .....		
Northwestern .....	492	18
Southeastern .....	5,272	188
Total New Mexico .....	5,764	206
Texas .....		
TRRC District 01 .....	1,934	69
TRRC District 02 .....	3,039	109
TRRC District 03 .....	10,285	367
TRRC District 04 .....	2,160	77
TRRC District 05 .....	653	23
TRRC District 06, excluding East Texas .....	3,301	118
TRRC District 07 .....	2,581	92
TRRC District 07C .....	2,728	97
TRRC District 08 .....	17,848	637
TRRC District 08A .....	17,654	631
TRRC District 09 .....	2,967	106
TRRC District 10 .....	1,510	54
East Texas .....	3,890	143
Total Texas .....	E 70,650	2,523
Adjustment 2 .....	-1,544	-55
<b>Total PAD District III .....</b>	<b>E 115,909</b>	<b>4,140</b>
<b>PAD District IV</b>		
Colorado .....	E 2,340	84
Montana .....	2,261	81
Utah .....	E 1,797	64
Wyoming .....	E 8,974	321
Adjustment 2 .....	90	3
<b>Total PAD District IV .....</b>	<b>E 15,462</b>	<b>552</b>
<b>PAD District V</b>		
Alaska .....		
South Alaska .....	2,004	72
North Slope .....	46,070	1,645
Adjustment for Alaska <sup>2</sup> .....	229	8
<b>Total Alaska .....</b>	<b>E 48,303</b>	<b>1,725</b>
Arizona .....	21	1
California .....		
Central Coastal .....	5,873	210
East Central .....	18,853	673
North .....	14	1
South .....	6,082	217
<b>Total California .....</b>	<b>30,822</b>	<b>1,101</b>
Nevada .....	50	2
Adjustment for Arizona, California, and Nevada <sup>2</sup> .....	671	24
<b>Total Pad District V .....</b>	<b>E 79,867</b>	<b>2,852</b>
<b>United States Total .....</b>	<b>E 242,481</b>	<b>8,660</b>

<sup>1</sup> Includes the following offshore production (thousands of barrels):

Alaska: 1,771;  
California: Federal- 2,343, State- 2,991;  
Louisiana: Federal- E 21,792, State- 1,792;  
Texas: Federal- E 1,615, State- 138;  
U.S. Total- 32,442.  
<sup>2</sup> These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

(s) Less than 500 barrels.

Sources: See Explanatory Notes on Data Collection and Estimation.  
E = Estimated.

**--- Natural Gas Processing Plant Production of Petroleum Products by PAD District, April 1983**  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV			United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Natural Gas Liquids	353	472	825	3	1,948	459	5,534	7,944	18,356	3,017	7,122	705	3,472	32,672	2,161	1,047	44,649
Natural Gasoline and Isopentane	44	34	78	0	62	74	1,059	1,195	1,997	1,237	1,157	92	304	4,787	311	379	6,750
Unfractionated Stream	37	138	175	3	760	82	-2,263	-1,418	9,016	-9,952	598	344	2,050	2,056	956	74	1,843
Plant Condensate	0	0	0	0	46	23	45	114	231	-661	20	17	5	-388	109	0	-165
Liquefied Petroleum Gases	272	300	572	0	1,080	280	6,693	8,053	7,112	12,393	5,347	252	1,113	26,217	785	594	36,221
Ethane	0	158	158	0	450	0	1,016	1,466	702	2,863	1,985	35	99	5,684	25	0	7,333
Propane	164	95	259	0	444	177	2,507	3,128	2,252	3,763	1,795	108	498	8,416	498	346	12,647
Butane	91	30	121	0	94	89	946	1,129	1,307	2,045	702	65	260	4,379	246	199	6,074
Butane-Propane Mixtures	0	0	0	0	1	0	8	9	54	41	1	12	0	108	11	95	163
Ethane-Propane Mixtures	0	0	0	0	39	0	1,824	1,863	2,227	2,413	327	0	170	5,137	0	3	7,003
Isobutane	17	17	34	0	52	14	392	458	570	1,268	537	32	86	2,493	5	11	3,001
Finished Petroleum Products	88	0	88	0	2	0	6	8	287	2	0	6	4	299	19	0	414
Finished Motor Gasoline	88	0	88	0	0	0	0	0	0	0	0	0	0	0	16	0	104
Finished Leaded Motor Gasoline	57	0	57	0	0	0	0	0	0	0	0	0	0	0	15	0	72
Finished Unleaded Motor Gasoline	31	0	31	0	0	0	0	0	0	0	0	0	0	0	1	0	32
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	68	0	0	0	0	68	0	0	68
Naphtna-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	0	3
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1
Special Naphthas	0	0	0	0	0	0	0	0	109	0	0	0	0	109	0	0	109
Miscellaneous Products	0	0	0	0	2	0	6	8	109	2	0	4	2	117	3	0	128
Total Production	441	472	913	3	1,950	459	5,540	7,952	18,643	3,019	7,122	710	3,476	32,970	2,180	1,047	45,062

1 Production represents quantity of natural gas processing plant output less input to fractionating facilities.  
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, April 1983**  
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I		PAD District II					PAD District III				PAD		United States			
	East Coast	Appalachian #1	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast	
Crude Oil (including lease condensate) -----	29,508	2,338	31,846	1,357	53,681	7,065	19,566	81,669	14,133	82,286	55,455	5,374	2,123	159,371	11,265	58,932	343,083
Natural Gas Liquids																	
Natural Gasoline and Isopentane -----	35	0	35	0	449	124	793	1,366	873	1,923	336	50	106	3,288	79	211	4,979
Unfractionated Stream -----	0	0	0	0	0	0	0	0	0	0	85	0	0	85	0	0	85
Plant Condensate -----	0	0	0	0	96	0	10	106	0	513	0	196	1	710	40	0	856
Liquefied Petroleum Gases -----	113	13	126	43	1,465	176	545	2,229	332	938	1,473	84	38	2,865	265	465	5,950
Ethane -----	0	0	0	0	0	0	0	0	0	0	93	0	0	93	3	0	96
Propane -----	0	0	0	0	43	0	0	43	0	2	76	0	0	78	7	23	151
Butane -----	0	13	13	13	748	140	219	1,120	63	769	847	2	4	1,685	125	316	3,259
Butane-Propane Mixtures -----	0	0	0	0	1	0	0	1	5	34	168	0	9	216	81	0	298
Ethane-Propane Mixtures -----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane -----	113	0	113	30	673	36	326	1,065	264	133	289	82	25	793	49	126	2,146
Other Liquids																	
Other Hydrocarbons and Alcohol -----	111	0	111	0	379	0	21	400	0	203	209	0	0	412	8	288	1,219
Unfinished Oil (net) -----	2,885	41	2,926	41	-1,919	-40	-549	-2,467	86	2,268	1,504	108	100	4,066	-767	1,989	5,747
Motor Gasoline Blending -----																	
Components (net) -----	456	41	497	2	456	169	1,014	1,641	-382	1,295	986	-26	2	1,875	499	466	4,978
Aviation Gasoline Blending -----																	
Components (net) -----	0	0	0	0	28	0	-8	20	0	-3	-5	0	0	-8	0	12	24
Total Input to Refineries -----	33,108	2,433	35,541	1,443	54,635	7,494	21,392	84,964	15,042	89,423	60,043	5,786	2,370	172,664	11,389	62,363	366,921
Crude Oil Distillation																	
Gross Input (daily average) -----	1,001	78	1,079	48	1,827	250	660	2,784	488	2,823	1,866	189	71	5,438	388	1,974	11,664
Operable Capacity (daily average) -----	1,473	174	1,647	66	2,351	295	854	3,565	612	4,061	2,877	294	106	7,949	561	3,110	16,832
Operating Ratio (percent) <sup>1</sup> -----	68.0	44.8	65.5	72.8	77.7	84.7	77.3	78.1	79.7	69.5	64.9	64.4	67.7	68.4	69.2	63.5	69.3
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent) -----	1.03	.47	.99	.54	.87	1.66	.57	.86	.64	.92	.81	1.64	.78	.88	.98	1.00	.91
API Gravity, Weighted Average -----	29.38	42.01	30.30	37.01	31.30	26.38	37.49	32.44	37.93	31.96	34.05	30.38	39.60	33.28	32.11	25.71	31.47
Operable Capacity (daily average) -----																	
Operating -----	1,473	174	1,647	66	2,351	295	854	3,565	612	4,061	2,877	294	106	7,949	561	3,110	16,832
Idle -----	1,283	106	1,388	66	2,191	295	757	3,309	559	3,498	2,228	242	106	6,633	521	2,770	14,622
	190	69	259	0	160	0	96	256	53	563	648	52	0	1,316	39	340	2,210

<sup>1</sup> Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, April 1983  
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III				Total		New Mexico	Total		PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill.	Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	Total		Rocky Mt.	Dist. V West Coast				
Liquefied Refinery Gases .....	1,292	23	1,315	30	1,610	260	447	2,347	197	2,565	1,716	73	78	4,629	126	1,279	9,696	1,279	126	1,279	9,696
For Petrochemical Feedstock Use .....	333	0	333	0	217	9	39	265	34	976	220	18	0	1,248	-5	324	2,165	324	-5	324	2,165
For Other Uses .....	959	23	982	30	1,393	251	408	2,082	163	1,589	1,496	55	78	3,381	131	955	7,531	955	131	955	7,531
Ethane .....	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses .....	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propane .....	1,142	23	1,165	30	1,614	224	472	2,340	194	2,091	1,405	43	43	3,776	137	730	8,148	730	137	730	8,148
For Petrochemical Feedstock Use .....	322	0	322	0	217	0	39	256	34	859	143	0	0	1,036	0	187	1,801	187	0	187	1,801
For Other Uses .....	820	23	843	30	1,397	224	433	2,084	160	1,232	1,262	43	43	2,740	137	543	6,347	543	137	543	6,347
Butane .....	137	0	137	0	-5	36	-25	6	3	-195	305	28	18	159	4	496	802	496	4	496	802
For Petrochemical Feedstock Use .....	11	0	11	0	0	9	0	9	0	-79	77	18	0	16	0	137	173	137	0	137	173
For Other Uses .....	126	0	126	0	-5	27	-25	-3	3	-116	228	10	18	143	4	359	629	359	4	359	629
Butane-Propane Mixtures .....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Petrochemical Feedstock Use .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane for Petro. Feed Use .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	16,762	951	17,713	882	33,566	4,342	13,104	51,894	7,658	41,854	29,530	1,668	1,031	81,741	6,302	28,305	185,955	6,302	6,302	28,305	185,955
Finished Leaded Motor Gasoline .....	6,769	425	7,194	485	15,062	2,493	7,804	25,844	3,601	16,814	13,026	942	568	34,951	3,993	12,504	84,486	3,993	3,993	12,504	84,486
Finished Unleaded Motor Gasoline .....	9,993	526	10,519	397	18,504	1,849	5,300	26,050	4,057	25,040	16,504	726	463	46,790	2,399	15,801	101,469	2,399	2,399	15,801	101,469
Finished Aviation Gasoline .....	23	0	23	0	77	0	9	86	-1	117	138	0	0	254	25	220	608	25	25	220	608
Naphtha-Type Jet Fuel .....	281	44	325	15	430	96	314	855	739	1,175	403	244	455	3,016	311	1,162	5,668	311	311	1,162	5,668
Kerosene-Type Jet Fuel .....	916	0	916	109	3,071	387	624	4,191	804	5,071	5,982	4	41	11,902	624	6,117	23,750	624	624	6,117	23,750
Kerosene .....	375	27	402	0	124	23	36	183	42	1,165	867	2	-19	2,057	0	68	2,710	68	0	68	2,710
Distillate Fuel Oil .....	6,806	562	7,368	245	8,796	1,400	4,809	15,250	3,022	16,419	9,541	1,502	622	31,106	2,811	8,535	65,070	2,811	2,811	8,535	65,070
Residual Fuel Oil .....	3,199	163	3,362	36	1,612	217	263	2,128	618	6,313	4,445	420	54	11,850	275	10,632	28,247	275	275	10,632	28,247
Naphtha < 400 Deg. For Petro. Feed Use .....	358	0	358	0	7	0	96	103	720	2,631	407	20	0	3,778	0	152	4,391	152	0	152	4,391
Other Oils > 400 Deg. For Petro. Feed Use .....	6	0	6	0	382	0	1	383	2	3,990	3,560	32	0	7,584	1	592	8,566	1	1	592	8,566
Special Naphthas .....	1	10	11	0	147	0	154	301	7	1,054	25	148	0	1,234	4	138	1,688	4	4	138	1,688
Lubricants .....	280	362	642	0	462	0	279	741	13	1,464	600	326	0	2,403	36	388	4,210	36	36	388	4,210
Waxes .....	21	73	94	0	18	0	27	45	7	79	66	61	0	213	11	61	424	11	11	61	424
Petroleum Coke .....	1,080	16	1,096	23	1,921	300	684	2,928	264	2,395	1,775	65	10	4,509	238	2,647	11,418	238	238	2,647	11,418
Marketable .....	372	0	372	0	1,138	189	471	1,798	61	1,138	1,002	48	0	2,249	103	2,032	6,554	103	103	2,032	6,554
Catalyst .....	708	16	724	23	783	111	213	1,130	203	1,257	773	17	10	2,260	135	615	4,864	135	135	615	4,864
Asphalt and Road Oil .....	1,900	45	1,945	93	1,890	717	408	3,108	549	659	1,396	1,055	87	3,746	477	1,382	10,658	477	477	1,382	10,658
Still Gas .....	1,552	81	1,633	58	2,100	252	801	3,211	374	4,544	2,059	183	47	7,207	394	2,929	15,374	394	394	2,929	15,374
For Petrochemical Feedstock Use .....	229	0	229	0	2	0	0	2	2	4	455	111	0	570	10	116	927	10	10	116	927
For Other Uses .....	1,323	81	1,404	58	2,088	252	801	3,209	370	4,089	1,948	183	47	6,637	384	2,813	14,447	384	384	2,813	14,447
Miscellaneous Products .....	176	34	210	3	85	22	53	163	76	492	319	41	0	928	22	146	1,469	22	22	146	1,469
Fuel Use .....	9	19	28	0	1	0	13	14	0	0	0	277	0	277	3	27	349	3	3	27	349
Non-Fuel Use .....	167	15	182	3	84	22	40	149	76	492	42	41	0	651	19	119	1,120	19	19	119	1,120
Total Production .....	35,028	2,391	37,419	1,494	56,298	8,016	22,109	87,917	15,091	91,987	62,829	5,844	2,406	178,157	11,657	64,753	379,903	11,657	11,657	64,753	379,903
Processing Gain(-) or Loss(+) <sup>1</sup> .....	-1,920	42	-1,878	-51	-1,663	-522	-717	-2,953	-49	-2,564	-2,786	-58	-36	-5,493	-268	-2,390	-12,982	-268	-268	-2,390	-12,982

<sup>1</sup> Represents the arithmetic difference between input and output.

Note: See Explanatory Note on negative production.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,<sup>1</sup> April 1983

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline <sup>2</sup> .....	49.5	37.7	48.7	59.9	59.4	55.1	56.4	58.3	48.1	43.7	46.4	24.9	39.8	44.4	51.5	44.1	48.1
Finished Aviation Gasoline <sup>3</sup> .....	.1	.0	.1	.0	.1	0	1	.1	.0	.1	.3	0	.0	.2	2	.3	.2
Liquefied Refinery Gases .....	4.0	1.0	3.8	2.1	3.1	3.7	2.4	3.0	1.4	3.0	3.0	1.3	3.5	2.8	1.2	2.1	2.8
Naphtha-Type Jet Fuel .....	.9	1.8	.9	1.1	.8	1.4	1.7	1.1	5.2	1.4	.7	4.5	20.5	1.8	3.0	1.9	1.6
Kerosene-Type Jet Fuel .....	2.8	0	2.6	7.8	5.9	5.5	3.3	5.3	5.7	6.0	10.5	.1	1.8	7.3	5.9	10.0	6.8
Kerosene .....	1.2	1.1	1.2	0	.2	.3	.2	.2	3	1.4	1.5	.0	-.9	1.3	0	1	.8
Distillate Fuel Oil .....	21.0	23.6	21.2	17.5	17.0	19.9	25.3	19.3	21.3	19.4	16.8	27.4	28.0	19.0	26.8	14.0	18.7
Residual Fuel Oil .....	9.9	6.9	9.7	2.6	3.1	3.1	1.4	2.7	4.3	7.5	7.8	7.7	2.4	7.3	2.6	17.5	8.1
Naphtha < 400 Deg. F. Petro. Feed Use .....	1.1	0	1.0	0	0	0	.5	1	5.1	3.1	.7	.4	0	2.3	0	.2	1.3
Other Oils > 400 Deg. F. Petro. Feed Use .....	.0	4	.0	0	3	0	.8	4	.0	12	.0	2.7	0	8	.0	1.0	2.5
Special Naphthas .....	.9	15.2	1.8	0	.9	0	1.5	9	.1	1.7	1.1	5.9	0	1.5	.3	.6	1.2
Lubricants .....	.1	3.1	.3	0	0	0	.1	1	.0	.1	.1	1.1	0	1	.1	.1	.1
Waxes .....	.1	3.1	.3	0	0	0	.1	1	.0	.1	.1	1.1	0	1	.1	.1	.1
Petroleum Coke .....	3.3	.7	3.2	1.6	3.7	4.3	3.6	3.7	1.9	2.8	3.1	1.2	.4	2.8	2.3	4.3	3.3
Asphalt and Road Oil .....	5.9	1.9	5.6	6.7	3.7	10.2	2.1	3.9	3.9	.8	2.5	19.2	3.9	2.3	4.5	2.3	3.1
Still Gas .....	4.8	3.4	4.7	4.1	4.1	3.6	4.2	4.1	2.6	5.4	3.6	3.3	2.1	4.4	3.8	4.8	4.4
Miscellaneous Products .....	5	1.4	6	.2	.2	3	.3	.2	5	.6	.6	.7	0	.6	.2	.2	.4
Processing Gain(-) or Loss(+) <sup>4</sup> .....	-5.9	1.8	-5.4	-3.6	-3.2	-7.4	-3.8	-3.7	-3	-3.0	-4.9	-1.1	-1.6	-3.4	-2.6	-3.9	-3.7

<sup>1</sup> Based on crude oil input and net reruns of unfinished oils.<sup>2</sup> Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.<sup>3</sup> Based on finished aviation gasoline output plus net output of aviation gasoline blending components.<sup>4</sup> Represents the difference between input and production.

Note: Totals may not equal sum of components due to independent rounding.

Note: See Explanatory Note on negative production.

Source: See Explanatory Notes on Data Collection and Estimation

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, April 1983  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) <sup>1 2</sup>	23,909	16,953	48,562	853	4,346	94,623
<b>Natural Gas Liquids</b>						
Natural Gasoline and Isopentane	325	2,250	371	399	516	3,860
Plant Condensate	31	0	0	0	0	0
Liquefied Petroleum Gases	293	2,250	371	276	516	3,706
Ethane	0	923	0	0	0	923
Propane	259	770	0	178	259	1,466
Butane	34	557	0	96	257	946
Butane-Propane Mixtures	0	0	371	0	0	371
Ethane-Propane Mixtures	0	0	0	0	0	0
<b>Other Liquids <sup>1</sup></b>						
Unfinished Oils <sup>1</sup>	2,727	743	4,605	0	27	8,102
Motor Gasoline Blending Components	2,165	640	4,605	0	27	7,437
Aviation Gasoline Blending Components	562	103	0	0	0	665
	0	0	0	0	0	0
<b>Finished Petroleum Products</b>						
Finished Motor Gasoline	29,017	1,270	3,595	13	1,845	35,739
Finished Leaded Motor Gasoline	5,648	363	161	7	1,024	8,203
Finished Unleaded Motor Gasoline	3,923	283	(s)	7	814	5,028
Finished Aviation Gasoline	2,724	80	161	0	210	3,176
Naphtha-Type Jet Fuel	1	0	0	0	0	1
Kerosene-Type Jet Fuel	0	0	0	0	(s)	(s)
Bonded Aircraft Fuel	314	0	30	0	108	453
Other	0	0	0	0	0	0
Kerosene	314	0	30	0	108	453
Distillate Fuel Oil	296	0	264	0	0	560
Bonded Ships Bunkers	1,958	34	5	4	184	2,185
Other	0	0	0	0	0	0
Residual Fuel Oil	1,958	34	5	4	184	2,185
Bonded Ships Bunkers	19,534	763	1,566	(s)	420	22,284
Other	0	0	0	0	0	0
Naphtha < 400 Deg. for Petro. Feed. Use	19,534	763	1,566	(s)	420	22,284
Other Oils > 400 Deg. for Petro. Feed. Use	6	46	35	0	0	87
Special Naphthas	112	35	245	(s)	15	407
Lubricants	78	4	(s)	(s)	72	153
Waxes	5	1	18	0	3	26
Asphalt and Road Oil	62	7	0	0	11	80
Miscellaneous Products	5	15	1,270	1	8	1,298
<b>Total Imports</b>	<b>55,977</b>	<b>21,216</b>	<b>57,132</b>	<b>1,265</b>	<b>6,734</b>	<b>142,325</b>

<sup>1</sup> Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.  
<sup>2</sup> Includes crude oil imported for storage in the Strategic Petroleum Reserve.  
(s) Less than 500 barrels.  
Note: Total may not equal sum of components due to independent rounding.  
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1983  
(Thousands of Barrels)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts														
<b>Arab OPEC</b>														
Algeria .....	5,281	0	0	0	0	0	0	360	1,205	0	0	1,564	6,845	228
Saudi Arabia .....	5,412	0	0	0	0	0	0	0	0	0	0	0	5,412	180
United Arab Emirates .....	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Subtotal Arab OPEC .....	10,694	0	0	0	0	0	0	360	1,205	0	0	1,564	12,258	409
<b>Other OPEC</b>														
Ecuador .....	1,745	0	0	0	0	0	0	0	0	0	0	0	1,745	58
Gabon .....	2,000	0	0	0	0	0	0	0	0	0	0	0	2,000	67
Indonesia .....	5,597	0	0	0	155	18	0	1	33	0	485	693	6,290	210
Nigeria .....	5,593	0	0	0	0	0	0	0	0	0	0	0	5,593	186
Venezuela .....	4,575	0	814	119	1,026	0	512	326	7,617	0	256	10,670	15,245	508
Subtotal Other OPEC .....	19,510	0	814	119	1,181	18	512	327	7,650	0	741	11,362	30,873	1,029
<b>Other</b>														
Angola .....	3,059	0	0	0	0	0	0	0	0	0	0	0	3,059	102
Australia .....	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Bahamas .....	0	0	2,389	263	0	0	48	395	1,412	0	491	4,998	4,998	167
Brazil .....	0	0	0	0	254	0	0	0	666	0	3	923	923	31
Canada .....	7,386	3,335	173	103	631	37	0	265	1,239	133	252	6,168	13,554	452
Congo .....	1,292	0	0	0	0	0	0	0	176	0	4	181	1,413	47
France .....	0	0	0	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Mexico .....	28,489	371	0	0	(s)	30	0	18	498	1	15	934	29,423	981
Netherlands .....	350	0	0	0	2,210	0	0	0	0	96	0	2,307	2,657	89
Netherlands Antilles .....	0	0	1,772	0	0	0	0	0	4,661	0	61	6,494	6,494	216
Norway .....	5,660	0	0	0	0	0	0	0	0	0	0	0	5,660	189
People's Republic of China .....	0	0	0	0	818	0	0	0	0	0	(s)	818	818	27
Peru .....	379	0	0	0	223	0	0	0	453	0	17	470	849	28
Puerto Rico .....	0	0	133	0	0	0	0	0	0	169	75	600	600	20
Romania .....	0	0	0	0	793	0	0	0	0	0	0	793	793	26
Syria .....	0	0	0	0	154	0	0	0	0	0	0	154	154	5
Trinidad and Tobago .....	2,307	0	37	0	0	0	0	0	201	0	17	255	2,562	85
Tunisia .....	498	0	0	0	0	0	0	0	0	0	0	0	498	17
United Kingdom .....	12,607	0	0	0	0	0	0	0	0	0	36	36	12,643	421
Virgin Islands .....	0	0	1,180	0	1,126	314	0	701	2,169	0	0	5,490	5,490	183
Yugoslavia .....	0	0	179	0	0	0	0	0	0	0	0	179	179	6
Zaire .....	640	0	0	0	0	0	0	0	0	0	0	0	640	21
Other Western Hemisphere .....	173	0	0	0	0	0	0	0	1,657	0	18	1,675	1,848	62
Other Eastern Hemisphere .....	1,639	0	758	179	815	53	0	120	297	7	72	2,301	3,940	131
Subtotal Other .....	64,419	3,706	6,623	546	7,023	435	48	1,498	13,429	407	1,061	34,775	99,194	3,306
<b>Total Imports .....</b>	<b>94,623</b>	<b>3,706</b>	<b>7,437</b>	<b>665</b>	<b>8,203</b>	<b>453</b>	<b>560</b>	<b>2,185</b>	<b>22,284</b>	<b>407</b>	<b>1,802</b>	<b>47,702</b>	<b>142,325</b>	<b>4,744</b>

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1983  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District I														
<b>Arab OPEC</b>														
Algeria .....	1,846	0	0	0	0	0	0	360	683	0	0	1,043	2,889	96
Saudi Arabia .....	1,806	0	0	0	0	0	0	0	0	0	0	0	1,806	60
Subtotal Arab OPEC .....	3,652	0	0	0	0	0	0	360	683	0	0	1,043	4,695	157
<b>Other OPEC</b>														
Gabon .....	1,281	0	0	0	0	0	0	0	0	0	0	0	1,281	43
Indonesia .....	1,292	0	0	0	0	0	0	0	0	0	0	0	1,292	43
Nigeria .....	1,757	0	0	0	0	0	0	0	0	0	0	0	1,757	59
Venezuela .....	2,208	0	0	119	1,026	0	248	326	7,267	0	(s)	8,986	11,194	373
Subtotal Other OPEC .....	6,538	0	0	119	1,026	0	248	326	7,267	0	(s)	8,986	15,524	517
<b>Other</b>														
Angola .....	659	0	0	0	0	0	0	0	0	0	0	0	659	22
Bahamas .....	0	0	0	263	0	0	48	395	1,412	0	0	2,118	2,118	71
Brazil .....	0	0	0	0	254	0	0	0	666	0	3	923	923	31
Canada .....	2	293	0	0	138	0	0	176	475	9	46	1,139	1,141	38
Congo .....	1,232	0	0	0	0	0	0	(s)	176	0	0	176	1,409	47
France .....	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico .....	2,564	0	0	0	0	0	0	0	373	0	0	373	2,937	98
Netherlands .....	0	0	0	0	2,210	0	0	0	0	0	0	2,210	2,210	74
Netherlands Antilles .....	0	0	993	0	0	0	0	0	4,093	0	61	5,146	5,146	172
Norway .....	2,980	0	0	0	0	0	0	0	0	0	0	0	2,980	99
Peru .....	379	0	0	0	0	0	0	0	453	0	0	453	832	28
Puerto Rico .....	0	0	133	0	223	0	0	0	0	95	75	526	526	18
Romania .....	0	0	0	0	793	0	0	0	0	0	0	793	793	26
Syria .....	0	0	0	0	154	0	0	0	0	0	0	154	154	5
Trinidad and Tobago .....	0	0	11	0	0	0	0	0	201	0	0	211	211	7
United Kingdom .....	4,662	0	0	0	0	0	0	0	0	0	1	1	4,663	155
Virgin Islands .....	0	0	850	0	1,126	314	0	701	2,169	0	0	5,160	5,160	172
Yugoslavia .....	0	0	179	0	0	0	0	0	0	0	0	179	179	6
<b>Other Western Hemisphere</b>	173	0	0	0	0	0	0	0	1,565	0	0	1,565	1,738	58
<b>Other Eastern Hemisphere</b>	1,068	0	0	179	724	0	0	0	0	7	(s)	911	1,979	66
Subtotal Other .....	13,718	293	2,165	442	5,622	314	48	1,272	11,584	112	187	22,039	35,758	1,192
<b>Total Imports</b> .....	23,909	293	2,165	562	6,648	314	296	1,958	19,534	112	187	32,068	55,977	1,865
PAD District II														
<b>Arab OPEC</b>														
Algeria .....	309	0	0	0	0	0	0	0	0	0	0	0	309	10
Subtotal Arab OPEC .....	309	0	0	0	0	0	0	0	0	0	0	0	309	10
<b>Other OPEC</b>														
Nigeria .....	1,054	0	0	0	0	0	0	0	0	0	0	0	1,054	35
Venezuela .....	0	0	512	0	0	0	0	0	0	0	0	512	512	17
Subtotal Other OPEC .....	1,054	0	512	0	0	0	0	0	0	0	0	512	1,566	52

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1983  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District II														
Other														
Canada	6,231	2,250	127	103	363	0	0	34	763	35	74	3,751	9,982	333
France	0	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Mexico	6,313	0	0	0	0	0	0	0	0	0	0	0	6,313	210
Norway	576	0	0	0	0	0	0	0	0	0	0	0	576	19
Trinidad and Tobago	450	0	0	0	0	0	0	0	0	0	0	0	450	15
United Kingdom	2,019	0	0	0	0	0	0	0	0	0	(s)	(s)	2,019	67
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	15,590	2,250	127	103	363	0	0	34	763	35	74	3,751	19,341	645
Total imports	16,953	2,250	640	103	363	0	0	34	763	35	74	4,263	21,216	707
PAD District III														
Arab OPEC														
Algeria	3,126	0	0	0	0	0	0	0	521	0	0	521	3,647	122
Saudi Arabia	3,606	0	0	0	0	0	0	0	0	0	0	0	3,606	120
United Arab Emirates	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
Subtotal Arab OPEC	6,732	0	0	0	0	0	0	0	521	0	0	521	7,254	242
Other OPEC														
Ecuador	1,745	0	0	0	0	0	0	0	0	0	0	0	1,745	58
Gabon	719	0	0	0	0	0	0	0	0	0	0	0	719	24
Indonesia	516	0	0	0	0	0	0	0	0	0	465	465	1,001	33
Nigeria	2,782	0	0	0	0	0	0	0	0	0	0	0	2,782	93
Venezuela	2,110	0	302	0	0	0	264	0	350	0	255	1,172	3,282	109
Subtotal Other OPEC	7,872	0	302	0	0	0	264	0	350	0	740	1,657	9,528	318
Other														
Angola	2,399	0	0	0	0	0	0	0	0	0	0	0	2,399	80
Australia	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Bahamas	0	0	2,369	0	0	0	0	0	0	0	491	2,860	2,860	96
Canada	0	0	45	0	0	0	0	0	0	73	0	118	118	4
Congo	0	0	0	0	0	0	0	0	0	0	4	4	4	(s)
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	19,612	371	0	0	(s)	30	0	5	125	1	1	533	20,145	672
Netherlands	350	0	0	0	0	0	0	0	568	96	0	96	446	15
Netherlands Antilles	0	0	780	0	0	0	0	0	0	0	0	1,348	1,348	45
Norway	2,104	0	0	0	0	0	0	0	0	0	0	0	2,104	70
People's Republic of China	0	0	0	0	161	0	0	0	0	0	(s)	161	161	5
Peru	0	0	0	0	0	0	0	0	0	0	17	17	17	1
Puerto Rico	0	0	0	0	0	0	0	0	0	74	0	74	74	2
Trinidad and Tobago	1,857	0	0	0	0	0	0	0	0	0	17	17	1,873	62
Tunisia	498	0	0	0	0	0	0	0	0	0	0	0	498	17
United Kingdom	5,926	0	0	0	0	0	0	0	0	0	35	35	5,961	199
Virgin Islands	0	0	330	0	0	0	0	0	0	0	0	330	330	11
Zaire	640	0	0	0	0	0	0	0	0	0	0	0	640	21
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	18	18	18	1

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, April 1983  
(Thousands of Barrels)  
(continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District III														
Other														
Other Eastern Hemisphere	572	0	758	0	0	0	0	0	2	0	0	760	1,332	44
Subtotal Other	33,958	371	4,303	0	161	30	0	5	695	245	583	6,393	40,350	1,345
Total Imports	48,562	371	4,605	0	161	30	264	5	1,566	245	1,323	8,571	57,132	1,904
PAD District IV														
Other														
Canada	853	276	0	0	7	0	0	4	(s)	(s)	124	412	1,265	42
Subtotal Other	853	276	0	0	7	0	0	4	(s)	(s)	124	412	1,265	42
Total Imports	853	276	0	0	7	0	0	4	(s)	(s)	124	412	1,265	42
PAD District V														
Other OPEC														
Indonesia	3,790	0	0	0	155	18	0	1	33	0	0	208	3,397	133
Venezuela	257	0	0	0	0	0	0	0	0	0	0	0	257	9
Subtotal Other OPEC	4,047	0	0	0	155	18	0	1	33	0	0	208	4,254	142
Other														
Canada	300	516	1	0	122	37	0	50	0	15	8	748	1,048	35
Mexico	0	0	0	0	0	0	0	13	0	0	14	27	27	1
People's Republic of China	0	0	0	0	657	0	0	0	0	0	0	657	657	22
Trinidad and Tobago	0	0	27	0	0	0	0	0	0	0	0	27	27	1
Other Western Hemisphere	0	0	0	0	0	0	0	0	92	0	0	92	92	3
Other Eastern Hemisphere	0	0	0	0	90	53	0	120	294	0	72	629	629	21
Subtotal Other	300	516	27	0	869	90	0	183	386	15	94	2,180	2,480	83
Total Imports	4,346	516	27	0	1,024	109	0	184	420	15	94	2,388	6,734	224

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, waxes, asphalt, lubricants, natural gasoline, isopentane, plant condensate, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, April 1983  
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) <sup>1</sup>	0	393	0	0	2,237	2,630
Liquefied Petroleum Gases	146	705	2,498	1	138	3,487
Ethane	(s)	(s)	0	0	0	(s)
Propane	120	282	2,172	(s)	55	2,629
Butane	26	423	326	(s)	83	858
Butane-Propane Mixtures	0	0	0	0	0	0
Finished Motor Gasoline	2	1	11	0	24	38
Naphtha-Type Jet Fuel	0	0	0	0	200	200
Kerosene-Type Jet Fuel	(s)	0	0	0	17	17
Kerosene	(s)	(s)	(s)	0	(s)	1
Distillate Fuel Oil	2	0	(s)	0	1,406	1,408
Residual Fuel Oil	(s)	0	3,391	0	5,920	9,311
Naphtha < 400 Deg. for Petrochem. Feedstock	50	6	68	2	5	130
Other Oils > 400 Deg. for Petrochem. Feedstock	39	0	560	0	1	599
Special Naphthas	3	1	29	1	1	35
Lubricants	216	11	337	1	78	644
Waxes	4	1	10	0	3	18
Petroleum Coke	199	918	3,390	(s)	1,203	5,710
Asphalt	1	2	(s)	(s)	8	11
Miscellaneous Products	11	2	17	(s)	4	34
Total Product Exports	673	1,647	10,312	5	9,006	21,642
Total Exports	673	2,040	10,312	5	11,243	24,272

<sup>1</sup> Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, April 1983  
(Thousands of Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Argentina	0	83	0	0	0	0	0	7	(s)	55	0	(s)	146	5
Australia	0	1	0	0	0	0	(s)	2	(s)	137	(s)	3	143	5
Bahamas	0	2	2	(s)	1	149	0	2	0	0	(s)	(s)	155	5
Bahrain	0	0	0	0	0	0	0	(s)	0	64	(s)	0	66	2
Belgium & Luxembourg	0	0	(s)	0	0	0	0	74	(s)	282	(s)	9	365	12
Brazil	0	0	0	0	0	0	(s)	8	(s)	0	0	(s)	10	(s)
Cameroon	0	0	0	0	0	0	0	0	0	30	0	0	30	1
Canada	393	711	21	0	6	75	3	59	3	538	9	23	1,841	61
Chile	0	1	0	0	0	0	(s)	1	(s)	1	0	1	3	(s)
China (Taiwan)	0	0	0	0	0	0	(s)	12	(s)	1	(s)	(s)	13	(s)
Colombia	0	(s)	0	0	0	0	0	8	0	(s)	0	(s)	9	(s)
Costa Rica	0	0	0	0	0	0	1	3	(s)	0	0	1	5	(s)
Denmark	0	19	0	0	0	0	0	(s)	(s)	0	0	(s)	19	1
Dominican Republic	0	73	0	0	0	0	(s)	1	0	0	0	1	75	2
Ecuador	0	34	0	0	0	0	0	1	(s)	0	0	1	36	1
Egypt	0	0	0	0	0	0	0	1	0	83	0	(s)	84	3
El Salvador	0	1	0	0	0	0	(s)	2	0	0	0	1	5	(s)
Finland	0	0	0	0	0	0	0	2	2	0	(s)	1	3	(s)
France	0	0	0	0	0	0	0	4	0	619	0	250	975	29
French Pacific Isl	0	0	0	0	49	0	0	(s)	0	0	(s)	0	49	2
Ghana	0	0	0	0	0	0	0	(s)	0	10	0	(s)	11	(s)
Greece	0	0	0	0	0	0	0	(s)	0	74	(s)	(s)	75	2
Guatemala	0	0	0	0	0	0	0	7	(s)	0	0	1	9	(s)
Guinea	0	(s)	0	0	0	0	0	1	0	0	0	0	1	(s)
Honduras	0	(s)	(s)	0	0	0	0	9	(s)	0	(s)	(s)	9	(s)
Hong Kong	0	1	0	0	0	65	1	1	(s)	0	(s)	3	71	2
India	0	0	0	0	0	0	0	3	(s)	0	0	1	5	(s)
Indonesia	0	0	0	200	0	0	(s)	41	0	0	(s)	(s)	241	8
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Italy	0	55	0	0	0	0	0	(s)	(s)	0	(s)	166	866	29
Ivory Coast	0	0	0	0	0	0	0	(s)	(s)	0	(s)	(s)	(s)	(s)
Jamaica	0	14	0	0	0	0	(s)	22	0	0	0	(s)	37	1
Japan	0	1,584	0	0	535	3,404	6	63	2	1,037	0	11	6,642	221
Jordan	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Korea, Republic of	0	3	0	0	419	67	(s)	7	(s)	16	0	2	514	17
Kuwait	0	1	0	0	0	0	(s)	(s)	0	0	0	(s)	1	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Liberia	0	1	0	0	0	160	0	(s)	0	0	0	1	162	5
Malaysia	0	0	0	0	(s)	0	0	1	0	0	0	(s)	1	(s)
Mexico	0	364	4	17	(s)	0	1	59	1	47	0	4	496	17
Netherlands	0	286	0	0	0	235	9	21	(s)	177	0	155	884	29
Netherlands Antilles	0	0	0	0	1	200	0	1	0	0	(s)	(s)	202	7
New Zealand	0	0	0	0	0	0	(s)	1	(s)	0	0	(s)	1	(s)
Nicaragua	0	0	0	0	0	0	0	3	0	0	0	(s)	3	(s)
Nigeria	0	0	0	0	0	0	0	(s)	(s)	162	0	(s)	167	6
Norway	0	1	0	0	0	0	0	4	0	0	(s)	(s)	(s)	(s)
Pacific Trust Terr.	0	0	0	0	0	0	0	(s)	0	0	0	(s)	222	7
Panama	0	13	0	0	205	0	2	3	(s)	0	0	2	19	1
Peru	0	10	0	0	0	0	0	7	(s)	(s)	0	0	265	9
Philippines	0	0	0	0	0	261	1	1	(s)	0	0	3	82	3
Puerto Rico	0	49	0	0	0	(s)	(s)	18	1	0	0	14	82	3
Rep. of South Africa	0	1	0	0	(s)	0	0	33	4	57	(s)	0	95	3

See footnotes at end of table.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, April 1983  
(Thousands of Barrels)

Destination	Crude Oil <sup>1</sup>	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other	Total	Total (Daily Average)
Saudi Arabia	0	2	0	0	0	0	(s)	20	0	0	0	5	28	1
Singapore	0	1	0	0	0	3,369	6	5	(s)	0	(s)	1	3,381	113
Spain	0	99	0	0	193	0	0	(s)	(s)	1,215	0	50	1,558	52
Surinam	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	0	0	0	0	0	(s)	8	(s)	0	0	1	9	(s)
Switzerland	0	1	0	0	0	336	0	(s)	(s)	155	0	3	495	17
Thailand	0	(s)	0	0	0	0	2	22	0	0	0	(s)	24	1
Trinidad and Tobago	0	1	0	0	0	0	0	1	0	0	0	0	1	(s)
Turkey	0	0	0	0	0	0	(s)	(s)	0	64	0	0	64	2
United Arab Emirates	0	(s)	0	0	0	0	(s)	(s)	0	0	(s)	(s)	1	(s)
United Kingdom	0	4	0	0	0	308	(s)	31	(s)	2	(s)	12	358	12
U.S.S.R.	0	0	0	0	0	0	0	29	0	0	0	0	29	1
Uruguay	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Venezuela	0	4	0	0	0	0	3	1	(s)	55	(s)	0	63	2
Virgin Islands	1,763	0	0	0	0	340	0	(s)	0	0	0	0	2,103	70
West Germany	0	3	0	0	0	0	(s)	11	(s)	60	0	35	109	4
Yugoslavia	0	0	0	0	0	0	0	(s)	0	44	0	(s)	44	1
Other	474	60	11	0	0	344	(s)	17	(s)	80	(s)	1	987	33
Total	2,630	3,487	38	217	1,408	9,311	35	644	18	5,710	11	764	24,272	809

<sup>1</sup> Exports of crude oil are prohibited by law. However, some crude oil is exchanged with

Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories

(especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical

Tracking Systems count these exchanges and shipments as imports and exports.

(s) Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, April 1983  
(Thousands of Barrels)

Commodity	PAD District I				PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mt.	Dist. V
<b>Crude Oil (incl. lease condensate)</b>																	
Refinery .....	—	—	14,947	—	—	—	—	13,754	—	—	—	—	—	54,001	2,759	24,729	110,190
Tank Farms and Pipelines .....	—	—	1,385	—	—	—	—	65,719	—	—	—	—	—	93,815	11,984	28,579	201,482
Leases .....	—	—	59	—	—	—	—	1,691	—	—	—	—	—	17,622	1,426	1,686	22,484
Strategic Petroleum Reserve <sup>1</sup> .....	—	—	0	—	—	—	—	0	—	—	—	—	—	317,735	0	0	317,735
Alaskan In-Transit .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	31,659	31,659
Total .....	—	—	16,391	—	—	—	—	81,164	—	—	—	—	—	483,173	16,169	86,653	683,550
<b>Total Stocks, All Oils (excl. Crude Oil)</b>																	
Refinery .....	33,318	2,975	36,293	975	44,070	7,250	17,811	70,106	9,513	77,703	43,927	4,840	1,321	137,304	14,513	61,397	319,613
Bulk Terminal .....	—	—	91,155	—	—	—	—	80,097	—	—	—	—	—	68,840	2,532	19,100	261,724
Pipeline .....	—	—	27,645	—	—	—	—	32,840	—	—	—	—	—	37,810	2,717	3,891	104,903
Natural Gas Processing Plant .....	108	62	170	0	215	48	772	1,035	1,897	1,448	764	59	210	4,378	223	68	5,874
Total .....	—	—	155,263	—	—	—	—	184,078	—	—	—	—	—	248,332	19,985	84,456	692,114
<b>Natural Gasoline and Isopentane</b>																	
Refinery .....	15	0	15	0	21	28	127	176	128	371	190	1	7	697	5	22	915
Bulk Terminal .....	—	—	13	—	—	—	—	1,238	—	—	—	—	—	1,527	1	3	2,782
Pipeline .....	—	—	0	—	—	—	—	194	—	—	—	—	—	655	24	5	878
Natural Gas Processing Plant .....	2	14	16	0	26	12	124	162	264	178	218	17	25	702	34	21	935
Total .....	—	—	44	—	—	—	—	1,770	—	—	—	—	—	3,581	64	51	5,510
<b>Unfractionated Stream</b>																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal .....	—	—	0	—	—	—	—	1,133	—	—	—	—	—	1,386	0	0	2,519
Pipeline .....	—	—	0	—	—	—	—	263	—	—	—	—	—	2,651	491	0	3,405
Natural Gas Processing Plant .....	0	0	0	0	94	2	346	442	195	1,095	80	1	14	1,385	37	1	1,865
Total .....	—	—	0	—	—	—	—	1,838	—	—	—	—	—	5,422	528	1	7,789
<b>Plant Condensate</b>																	
Refinery .....	0	0	0	0	5	0	0	5	15	100	0	63	0	178	0	0	183
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	147	0	0	147
Natural Gas Processing Plant .....	0	0	0	0	3	4	3	10	33	25	10	5	0	73	17	0	100
Total .....	—	—	0	—	—	—	—	15	—	—	—	—	—	398	17	0	430
<b>Liquefied Petroleum Gases</b>																	
Refinery .....	421	11	432	134	1,128	121	538	1,921	167	3,839	1,995	31	20	6,052	331	866	9,602
Bulk Terminal .....	—	—	1,173	—	—	—	—	18,884	—	—	—	—	—	40,449	57	582	61,145
Pipeline .....	—	—	2,425	—	—	—	—	6,935	—	—	—	—	—	3,208	38	0	12,606
Natural Gas Processing Plant .....	86	48	134	0	91	30	299	420	1,136	148	456	35	170	1,945	122	46	2,667
Total .....	—	—	4,164	—	—	—	—	28,160	—	—	—	—	—	51,654	548	1,494	86,020
<b>Ethane</b>																	
Refinery .....	0	0	0	0	7	0	0	7	0	1,142	0	0	0	1,142	2	0	1,151
Bulk Terminal .....	—	—	0	—	—	—	—	663	—	—	—	—	—	1,857	0	0	2,520
Pipeline .....	—	—	0	—	—	—	—	1,146	—	—	—	—	—	279	0	0	1,425

See footnotes at end of table

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, April 1983  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Rocky Mts.	Dist. V West Coast
Ethane																	
Natural Gas Processing Plant .....	0	0	0	0	23	0	32	55	0	1	0	0	8	9	1	0	65
Total .....	—	—	0	—	—	—	—	1,871	—	—	—	—	—	3,287	3	0	5,161
Propane for Petrochemical Feedstock Use																	
Refinery .....	35	0	35	0	123	0	1	124	1	5	68	0	0	74	0	0	233
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	35	—	—	—	—	124	—	—	—	—	—	74	0	0	233
Propane For Other Uses																	
Refinery .....	329	6	335	1	663	28	232	924	33	970	854	3	3	1,863	99	133	3,354
Bulk Terminal .....	—	—	1,049	—	—	—	—	11,046	—	—	—	—	—	16,287	56	194	28,632
Pipeline .....	—	—	2,341	—	—	—	—	3,702	—	—	—	—	—	1,243	3	0	7,289
Natural Gas Processing Plant .....	32	46	78	0	48	21	94	163	400	25	337	11	102	875	92	28	1,236
Total .....	—	—	3,803	—	—	—	—	15,835	—	—	—	—	—	20,268	250	355	40,511
Butane For Petro. Feed Use																	
Refinery .....	0	0	0	0	0	21	0	21	0	15	0	13	0	28	0	2	51
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	0	—	—	—	—	21	—	—	—	—	—	28	0	2	51
Butane For Other Uses																	
Refinery .....	57	5	62	78	232	47	166	523	71	1,044	534	5	5	1,659	186	527	2,957
Bulk Terminal .....	—	—	124	—	—	—	—	2,250	—	—	—	—	—	9,240	1	255	11,870
Pipeline .....	—	—	64	—	—	—	—	1,051	—	—	—	—	—	320	0	0	1,435
Natural Gas Processing Plant .....	53	2	55	0	15	8	88	111	317	61	82	18	34	512	26	10	714
Total .....	—	—	305	—	—	—	—	3,935	—	—	—	—	—	11,731	213	792	16,976
Butane-Propane Mixtures For Petro. Feed Use																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Butane-Propane Mixtures For Other Uses																	
Refinery .....	0	0	0	0	3	0	0	3	1	20	8	0	7	36	4	164	207
Bulk Terminal .....	—	—	0	—	—	—	—	498	—	—	—	—	—	27	0	29	554
Pipeline .....	—	—	0	—	—	—	—	20	—	—	—	—	—	647	0	0	667
Natural Gas Processing Plant .....	0	0	0	0	0	0	1	1	5	14	0	1	0	20	2	6	29
Total .....	—	—	0	—	—	—	—	522	—	—	—	—	—	730	6	199	1,457
Ethane-Propane Mixtures																	
Refinery .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal .....	—	—	0	—	—	—	—	3,028	—	—	—	—	—	9,089	0	0	12,117
Pipeline .....	—	—	0	—	—	—	—	498	—	—	—	—	—	499	35	0	1,032
Natural Gas Processing Plant .....	0	0	0	0	0	0	67	67	342	0	0	0	18	360	0	0	427
Total .....	—	—	0	—	—	—	—	3,593	—	—	—	—	—	9,948	35	0	13,576

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, April 1983  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		PAD District IV	
																Rocky Mts.	West Coast
Isobutane																	
Refinery .....	0	0	0	55	100	25	139	319	61	643	531	10	5	1,250	40	40	1,649
Bulk Terminal .....	—	—	0	—	—	—	—	1,399	—	—	—	—	—	3,949	0	104	5,452
Pipeline .....	—	—	20	—	—	—	—	518	—	—	—	—	—	220	0	0	758
Natural Gas Processing Plant .....	1	0	1	0	5	1	17	23	72	47	37	5	8	169	1	2	196
Total .....	—	—	21	—	—	—	—	2,259	—	—	—	—	—	5,588	41	146	8,055
Other Hydrocarbons and Alcohol																	
Refinery .....	44	0	44	0	123	0	0	123	1	88	23	0	0	112	0	7	286
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	44	—	—	—	—	123	—	—	—	—	—	112	0	7	286
Unfinished Oils																	
Refinery .....	3,304	289	3,593	46	3,244	151	1,306	4,747	747	7,737	5,692	161	85	14,422	539	4,342	27,643
Naphtha and Lighter .....	1,780	32	1,812	0	2,348	18	495	2,861	793	7,557	1,282	35	10	9,677	549	3,992	18,891
Kerosene and Lighter Gas Oils .....	5,437	320	5,757	103	5,745	258	1,929	8,635	866	12,214	6,258	270	110	19,718	994	11,534	46,038
Heavy Gas Oils .....	1,648	240	1,888	1	3,445	16	1,539	5,001	539	4,364	3,185	33	0	8,121	932	5,586	21,528
Residuum .....	12,169	881	13,050	150	14,782	443	5,269	20,644	2,945	31,872	16,417	489	205	51,938	3,014	25,454	114,100
Total .....	—	—	4,161	—	—	—	—	8,446	—	—	—	—	—	16,501	2,325	6,460	37,893
Motor Gasoline Blending Components																	
Refinery .....	3,985	77	4,062	31	5,659	752	1,806	8,248	1,273	7,942	6,031	135	171	15,552	2,324	6,367	36,553
Bulk Terminal .....	—	—	99	—	—	—	—	18	—	—	—	—	—	890	1	93	1,101
Pipeline .....	—	—	0	—	—	—	—	180	—	—	—	—	—	59	0	0	239
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	4,161	—	—	—	—	8,446	—	—	—	—	—	16,501	2,325	6,460	37,893
Aviation Gasoline Blending Components																	
Refinery .....	0	0	0	0	80	0	21	101	43	28	179	0	0	250	0	34	385
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	0	—	—	—	—	101	—	—	—	—	—	250	0	34	385
Total Finished Motor Gasoline																	
Refinery .....	4,263	149	4,412	92	6,572	1,541	2,941	11,146	1,762	9,101	5,141	755	200	16,959	2,528	6,863	41,908
Bulk Terminal .....	—	—	36,975	—	—	—	—	30,186	—	—	—	—	—	11,109	1,561	8,677	88,508
Pipeline .....	—	—	15,233	—	—	—	—	15,586	—	—	—	—	—	18,128	1,455	2,059	52,461
Total .....	—	—	51,220	—	—	—	—	56,918	—	—	—	—	—	46,196	5,556	17,599	182,909
Total Finished Motor Gasoline																	
Natural Gas Processing Plant .....	20	0	20	0	0	0	0	0	0	0	0	0	0	0	12	0	32
Total .....	—	—	56,640	—	—	—	—	56,918	—	—	—	—	—	46,196	5,556	17,599	182,909
Finished Leaded Motor Gasoline																	
Refinery .....	1,706	78	1,784	44	3,156	941	1,674	5,915	820	4,359	2,421	457	95	8,152	1,640	2,838	20,229
Bulk Terminal .....	—	—	16,983	—	—	—	—	15,446	—	—	—	—	—	4,938	958	4,271	42,586
Pipeline .....	—	—	8,939	—	—	—	—	8,257	—	—	—	—	—	8,892	1,023	1,009	28,120
Natural Gas Processing Plant .....	13	0	13	0	0	0	0	0	0	0	0	0	0	0	10	0	23
Total .....	—	—	27,719	—	—	—	—	29,518	—	—	—	—	—	21,982	3,631	8,118	90,968

See footnotes at end of table.

**Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, April 1983**  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III				PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		
Finished Unleaded Motor Gasoline																
Refinery .....	2,557	71	2,628	48	3,416	600	1,267	5,331	942	4,742	2,720	298	105	8,807	888	4,025
Bulk Terminal .....	—	—	19,992	—	—	—	—	14,740	—	—	—	—	—	6,171	603	4,406
Pipeline .....	—	—	6,294	—	—	—	—	7,329	—	—	—	—	—	9,236	432	1,050
Natural Gas Processing Plant .....	7	0	7	0	0	0	0	0	0	0	0	0	0	0	2	0
Total .....	—	—	28,921	—	—	—	—	27,400	—	—	—	—	—	24,214	1,925	9,481
Finished Aviation Gasoline																
Refinery .....	42	0	42	0	202	0	19	221	26	280	174	0	0	480	44	223
Bulk Terminal .....	—	—	378	—	—	—	—	383	—	—	—	—	—	113	18	345
Pipeline .....	—	—	0	—	—	—	—	50	—	—	—	—	—	21	5	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	106	0	0	0	0	106	0	76
Total .....	—	—	420	—	—	—	—	654	—	—	—	—	—	720	67	568
Naphtha-Type Jet Fuel																
Refinery .....	167	34	201	0	692	46	346	1,084	237	717	438	138	127	1,657	180	734
Bulk Terminal .....	—	—	17	—	—	—	—	505	—	—	—	—	—	285	8	493
Pipeline .....	—	—	167	—	—	—	—	155	—	—	—	—	—	546	71	298
Total .....	—	—	385	—	—	—	—	1,744	—	—	—	—	—	2,488	259	1,525
Kerosene-Type Jet Fuel																
Refinery .....	1,262	0	1,262	42	1,457	113	156	1,768	291	2,422	1,971	3	17	4,704	394	3,219
Bulk Terminal .....	—	—	4,904	—	—	—	—	3,217	—	—	—	—	—	1,680	195	1,981
Pipeline .....	—	—	3,240	—	—	—	—	2,259	—	—	—	—	—	4,321	134	571
Total .....	—	—	9,406	—	—	—	—	7,244	—	—	—	—	—	10,705	723	5,771
Kerosene																
Refinery .....	388	68	456	0	673	40	297	1,010	41	606	346	9	51	1,053	2	203
Bulk Terminal .....	—	—	2,991	—	—	—	—	1,114	—	—	—	—	—	601	27	65
Pipeline .....	—	—	284	—	—	—	—	113	—	—	—	—	—	384	0	1
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	3
Total .....	—	—	3,731	—	—	—	—	2,237	—	—	—	—	—	2,041	29	269
Distillate Fuel Oils																
Refinery .....	3,459	316	3,775	53	4,913	1,542	3,163	9,671	979	7,781	3,717	703	185	13,365	1,672	4,290
Bulk Terminal .....	—	—	21,745	—	—	—	—	16,504	—	—	—	—	—	5,189	580	4,117
Pipeline .....	—	—	6,289	—	—	—	—	7,075	—	—	—	—	—	7,467	499	943
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0
Total .....	—	—	31,809	—	—	—	—	33,250	—	—	—	—	—	26,023	2,751	9,350
Distillate Fuel Oils																
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2
Total .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103,183
Residual Fuel Oils																
Refinery .....	2,614	117	2,731	55	1,650	155	115	1,975	379	4,653	3,502	251	52	8,837	453	7,197
Bulk Terminal .....	—	—	17,540	—	—	—	—	1,466	—	—	—	—	—	4,581	0	1,819
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	1	0	14
Total .....	—	—	20,271	—	—	—	—	3,441	—	—	—	—	—	13,419	453	9,030
Total .....																
																46,614

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, April 1983  
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
<b>Naphtha &lt; 400 Deg. Petro. Feedstock</b>																	
Refinery .....	36	0	36	0	52	0	82	134	152	1,057	550	41	0	1,800	0	276	2,246
Total .....	36	0	36	0	52	0	82	134	152	1,057	550	41	0	1,800	0	276	2,246
<b>Other Oils &gt; 400 Deg. Petro. Feedstock</b>																	
Refinery .....	4	0	4	0	122	0	1	123	143	907	210	3	0	1,263	2	364	1,756
Total .....	4	0	4	0	122	0	1	123	143	907	210	3	0	1,263	2	364	1,756
<b>Special Naphthas</b>																	
Refinery .....	20	35	55	0	134	0	133	267	28	1,340	32	167	0	1,567	10	299	2,198
Bulk Terminal .....	—	—	505	—	—	—	—	212	—	—	—	—	—	78	0	26	821
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	107	0	0	0	0	107	0	0	107
Total .....	—	—	560	—	—	—	—	479	—	—	—	—	—	1,752	10	325	3,126
<b>Lubricants</b>																	
Refinery .....	1,009	1,004	2,013	0	771	0	573	1,344	41	3,491	1,262	563	0	5,357	71	676	9,461
Bulk Terminal .....	—	—	1,389	—	—	—	—	847	—	—	—	—	—	337	3	616	3,192
Total .....	—	—	3,402	—	—	—	—	2,191	—	—	—	—	—	5,694	74	1,292	12,653
<b>Waxes</b>																	
Refinery .....	23	146	169	0	35	0	45	80	26	208	122	90	0	446	5	70	770
Bulk Terminal .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Pipeline .....	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	0	0
Natural Gas Processing Plant .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	—	—	169	—	—	—	—	80	—	—	—	—	—	446	5	70	770
<b>Petroleum Coke</b>																	
Refinery .....	744	0	744	0	828	42	943	1,813	0	84	602	200	0	886	882	2,293	6,618
Total .....	744	0	744	0	828	42	943	1,813	0	84	602	200	0	886	882	2,293	6,618
<b>Asphalt and Road Oil</b>																	
Refinery .....	2,403	104	2,507	417	4,100	2,423	1,232	8,172	796	551	908	1,149	286	3,690	2,596	1,744	18,709
Bulk Terminal .....	—	—	3,384	—	—	—	—	4,335	—	—	—	—	—	539	81	251	8,590
Total .....	—	—	5,891	—	—	—	—	12,507	—	—	—	—	—	4,229	2,677	1,995	27,299
<b>Miscellaneous Products</b>																	
Refinery .....	250	33	283	1	71	4	4	80	40	265	117	39	0	461	0	196	1,020
Bulk Terminal .....	—	—	42	—	—	—	—	55	—	—	—	—	—	76	0	32	205
Pipeline .....	—	—	7	—	—	—	—	30	—	—	—	—	—	222	0	0	259
Natural Gas Processing Plant .....	0	0	0	0	1	0	0	1	52	2	0	1	0	55	1	0	57
Total .....	—	—	332	—	—	—	—	166	—	—	—	—	—	814	1	228	1,541
<b>Total Stocks, All Oils</b> .....	—	—	171,654	—	—	—	—	265,242	—	—	—	—	—	731,505	36,154	171,109	1,375,664

1 Includes 33,879 thousands of barrels of domestic crude oil.

Sources: See Explanatory Notes on Data Collection and Estimation.

— Not Applicable.

**Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, April 1983**  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to			From V to		
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
<b>Crude Oil (Tanker and Barge only)</b>	82	0	0	0	0	0	0	213	680	0	0	0	0	0	4,402	0	21,927	0
<b>Petroleum Products</b>	7,534	354	0	2,645	6,586	1,976	889	78,995	18,296	0	1,847	1,217	470	1,204	24	0	267	0
Natural Gasoline and Isopentane	0	0	0	0	95	0	0	0	354	0	0	11	0	0	0	0	0	0
Unfractionated Stream	0	0	0	0	609	0	0	0	711	0	0	394	470	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	465	2,331	139	0	1,472	4,699	0	0	0	0	0	0	0	0	0
Unfinished Oils	7	120	0	0	57	0	0	211	169	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	961	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,480	0	0	1,480	2,317	1,118	185	48,469	6,722	0	860	518	0	829	24	0	0	0
Finished Leaded Motor Gasoline	3,066	0	0	688	1,296	628	99	20,454	3,088	0	469	322	0	494	24	0	0	0
Finished Unleaded Motor Gasoline	2,414	0	0	792	1,021	490	86	28,015	3,634	0	391	196	0	335	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	24	18	0	121	117	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	112	0	0	0	63	0	0	667	151	0	297	89	0	49	0	0	0	0
Kerosene-Type Jet Fuel	147	0	0	178	55	503	0	9,339	1,482	0	218	4	0	43	0	0	0	0
Kerosene	19	0	0	10	10	0	0	388	10	0	0	0	0	0	0	0	0	0
Disillate Fuel Oil	1,731	0	0	253	779	198	305	15,343	2,245	0	375	201	0	283	0	0	0	0
Residual Fuel Oil	0	140	0	36	182	0	399	1,726	231	0	40	0	0	0	0	166	0	0
Naphtha and Other Oils for Petro.																		
Feedstock	34	0	0	9	0	0	0	80	9	0	5	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	295	72	0	7	0	0	0	0	0	0	0
Lubricants	0	94	0	37	54	0	0	535	80	0	45	0	0	0	0	77	0	0
Waxes	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	36	0	0	0	162	270	0	0	0	0	0	0	0	0	0
Miscellaneous Products	4	0	0	161	20	0	0	184	13	0	0	0	0	0	0	0	24	0
<b>Total All Products</b>	7,616	354	0	2,845	6,586	1,976	889	79,208	18,976	0	1,847	1,217	470	1,204	4,426	0	22,194	0

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, April 1983  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	II	III	V	III	IV
Natural Gasoline and Isopentane .....	0	0	0	0	95	0	0	354	0	0	0	11	0	0	0
Unfractionated Stream .....	0	0	0	0	609	0	0	711	0	0	0	394	470	0	0
Plant Condensate .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases .....	0	0	0	485	2,331	139	1,156	4,699	0	0	0	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	0	961	0	0	0	0	0	0	0
Aviation Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	4,079	0	1,197	2,317	2,317	1,118	35,873	5,586	0	860	518	0	829	0	0
Finished Leaded Motor Gasoline .....	2,302	0	545	1,296	628	15,241	2,560	469	0	469	322	0	494	0	0
Finished Unleaded Motor Gasoline .....	1,777	0	642	1,021	490	20,632	3,026	391	0	391	196	0	335	0	0
Finished Aviation Gasoline .....	0	0	0	0	0	18	25	88	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel .....	0	0	0	63	53	0	315	151	0	297	89	0	49	0	0
Kerosene-Type Jet Fuel .....	93	0	164	55	503	5,696	1,346	4	0	218	4	0	43	0	0
Kerosene .....	14	0	0	0	0	0	348	10	0	0	0	0	0	0	0
Distillate Fuel Oil .....	1,151	0	226	773	198	10,706	1,751	201	0	375	201	0	283	0	0
Residual Fuel Oil .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products .....	0	0	152	0	0	0	0	0	0	0	0	0	0	0	0
Total .....	5,337	0	2,194	6,249	1,976	54,119	15,657	1,750	0	1,750	1,217	470	1,204	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, April 1983  
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil .....	82	0	0	0	0	0	213	0	213	0	680	0	4,402	0	21,927
Petroleum Products .....	2,197	354	0	451	337	889	24,876	2,328	3,904	18,644	2,639	97	24	0	267
Liquefied Petroleum Gases .....	0	0	0	0	0	0	316	0	0	316	0	0	0	0	0
Unfinished Oils .....	7	120	0	0	57	0	211	0	211	0	169	0	0	0	0
Motor Gasoline Blending Components .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline .....	1,401	0	0	273	0	185	12,596	555	697	11,344	1,136	0	24	0	0
Finished Aviation Gasoline .....	0	0	0	0	24	0	96	0	30	66	29	0	0	0	0
Naphtha-Type Jet Fuel .....	112	0	0	0	0	0	352	0	119	233	0	0	0	0	0
Kerosene-Type Jet Fuel .....	54	0	0	14	0	0	3,643	210	621	2,812	136	0	0	0	0
Kerosene .....	5	0	0	10	0	0	40	0	0	40	0	0	0	0	0
Distillate Fuel Oil .....	580	0	0	27	0	305	4,637	1,106	1,252	2,279	494	0	0	0	0
Residual Fuel Oil .....	0	140	0	36	182	399	1,726	416	199	1,111	231	40	0	0	166
Naphtha and Other Oils for Petro. Feed. Use .....	34	0	0	9	0	0	80	0	70	10	9	5	0	0	0
Special Naphthas .....	0	0	0	0	0	0	295	0	214	81	72	7	0	0	0
Lubricants .....	0	94	0	37	54	0	535	41	360	134	80	45	0	0	77
Waxes .....	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
Asphalt and Road Oil .....	0	0	0	36	0	0	162	0	19	143	270	0	0	0	0
Miscellaneous Products .....	4	0	0	9	20	0	184	0	109	75	13	0	0	0	24
Total .....	2,279	354	0	451	337	889	25,089	2,328	4,117	18,644	3,319	97	4,426	0	22,194

Source: See Explanatory Notes on Data Collection and Estimation.

**Table 24. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, April 1983**  
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts into PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts into PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts into PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts into PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts into PADD V
<b>Crude Oil (Tanker and Barge only)</b>	4,615	82	4,533	762	0	762	21,927	893	21,034	0	0	0	0	26,329	-26,329
<b>Petroleum Products</b>	81,664	7,888	73,776	27,047	12,096	14,951	7,677	98,138	-91,461	1,976	2,891	-915	3,940	291	3,649
Natural Gasoline	0	0	0	365	95	270	95	354	-259	0	11	-11	0	0	0
Unfractionated Stream	0	0	0	1,105	609	496	1,079	711	368	0	864	-864	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	1,937	0	1,937	4,699	2,935	1,764	2,331	6,171	-3,840	139	0	139	0	0	0
Unfinished Oils	211	127	84	176	57	119	177	380	-203	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	961	0	961	0	961	-961	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	49,953	5,480	44,473	12,720	5,080	7,640	2,317	56,051	-53,734	1,118	1,347	-229	1,874	24	1,850
Finished Leaded Motor Gasoline	21,146	3,066	18,080	6,476	2,691	3,785	1,296	24,011	-22,715	628	816	-188	1,062	24	1,038
Finished Unleaded Motor Gasoline	28,807	2,414	26,393	6,244	2,389	3,855	1,021	32,040	-31,019	490	531	-41	812	0	812
Finished Aviation Gasoline	121	0	121	117	42	75	24	238	-214	18	0	18	0	0	0
Naphtha-Type Jet Fuel	667	112	555	352	63	289	63	1,115	-1,052	0	138	-138	346	0	346
Kerosene-Type Jet Fuel	9,517	147	9,370	1,633	736	897	55	11,039	-10,984	503	47	456	261	0	261
Kerosene	398	19	379	29	10	19	0	398	-398	0	0	0	0	0	0
Distillate Fuel Oil	15,596	1,731	13,865	4,177	1,535	2,642	779	17,963	-17,184	198	484	-286	963	0	963
Residual Fuel Oil	1,762	140	1,622	231	617	-386	488	1,997	-1,509	0	0	0	439	166	273
Naphtha and Other Oils for Petro.															
Feedstock Use	89	34	55	43	9	34	0	94	-94	0	0	0	5	0	5
Special Naphthas	295	0	295	72	0	72	0	374	-374	0	0	0	7	0	7
Lubricants	572	94	478	80	91	-11	225	660	-435	0	0	0	45	77	-32
Waxes	3	0	3	0	0	0	0	3	-3	0	0	0	0	0	0
Asphalt and Road Oil	198	0	198	270	36	234	0	432	-432	0	0	0	0	0	0
Miscellaneous Products	345	4	341	17	181	-164	44	197	-153	0	0	0	0	24	-24
<b>Total All Products</b>	86,279	7,970	78,309	27,809	12,096	15,713	29,604	100,031	-70,427	1,976	2,891	-915	3,940	26,620	-22,680

Sources: See Explanatory Notes on Data Collection and Estimation.

**Table 25. Production of Residual Fuel Oil By Sulfur Content, April 1983  
(Thousands of Barrels)**

Commodity	PAD District I			PAD District II					PAD District III					PAD			United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Flocky Mt.	Dist. V West Coast	
Residual Fuel Oil	3,199	163	3,362	36	1,612	217	263	2,128	618	6,313	4,445	420	54	11,850	275	10,632	28,247
0.00 to 0.30% Sulfur	455	49	504	0	95	0	90	185	55	449	743	95	4	1,346	64	810	2,909
0.31 to 1.00% Sulfur	1,895	2	1,897	36	412	0	110	558	473	1,483	1,767	176	3	3,902	56	2,519	8,932
Greater Than 1.00% Sulfur	849	112	961	0	1,105	217	63	1,385	90	4,381	1,935	149	47	6,602	155	7,303	16,406

**Source:** See Explanatory Notes on Data Collection and Estimation.

**Table 26. Stocks of Residual Fuel Oil By Sulfur Content, April 1983  
(Thousands of Barrels)**

Commodity	PAD District I			PAD District II					PAD District III					PAD		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast
<b>Residual Fuel Oil — 0.00 to 0.30% Sulfur</b>																	
Refinery .....	319	39	358	0	213	0	7	220	76	230	233	25	20	584	156	402	1,720
Bulk Terminal .....	—	—	3,597	—	—	—	—	82	—	—	—	—	—	49	0	0	3,728
Total .....	—	—	3,955	—	—	—	—	302	—	—	—	—	—	633	156	402	5,448
<b>Residual Fuel Oil — 0.31 to 1.00% Sulfur</b>																	
Refinery .....	1,260	10	1,270	55	558	0	43	656	207	1,165	1,364	124	5	2,865	70	1,568	6,429
Bulk Terminal .....	—	—	5,868	—	—	—	—	439	—	—	—	—	—	2,542	0	422	9,271
Total .....	—	—	7,138	—	—	—	—	1,095	—	—	—	—	—	5,407	70	1,990	15,700
<b>Residual Fuel Oil -- Greater than 1.00% Sulfur</b>																	
Refinery .....	1,035	68	1,103	0	879	155	65	1,099	96	3,258	1,905	102	27	5,388	227	5,227	13,044
Bulk Terminal .....	—	—	8,075	—	—	—	—	945	—	—	—	—	—	1,990	0	1,397	12,407
Total .....	—	—	9,178	—	—	—	—	2,044	—	—	—	—	—	7,378	227	6,624	25,451

Sources: See Explanatory Notes on Data Collection and Estimation  
— Not Applicable

**Table 27. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, By Sulfur Content, April 1983  
(Thousands of Barrels)**

Commodity	From I to			From II to			From III to					From V to			
	II	III	V	I	III	V	I	New Eng	Cent Att	Low Att	II	V	I	II	III
Residual Fuel Oil .....	0	140	0	36	182	399	1,726	416	199	1,111	231	40	0	0	166
0.00 to 0.30% Sulfur .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur .....	0	0	0	35	0	0	13	0	0	13	65	0	0	0	0
Greater Than 1.00% Sulfur .....	0	140	0	0	182	399	1,713	416	199	1,098	166	40	0	0	166

Source. See Explanatory Notes on Data Collection and Estimation.

**Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, April 1983**  
(Thousands of Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
<b>Arab OPEC</b>				
Algeria	1,205	0	0	1,205
Iraq	0	0	0	0
Kuwait	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,205	0	0	1,205
<b>Other OPEC</b>				
Ecuador	0	0	0	0
Gabon	0	0	0	0
Indonesia	0	17	16	33
Nigeria	0	0	0	0
Venezuela	2,297	818	4,502	7,617
Subtotal Other OPEC	2,297	835	4,518	7,650
<b>Other</b>				
Angola	0	0	0	0
Australia	0	0	0	0
Bahamas	1,121	290	0	1,412
Bolivia	0	0	0	0
Brazil	341	328	0	669
Brunei	0	0	0	0
Canada	112	865	262	1,239
Congo	0	176	0	176
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	(e)	498	498
Netherlands	0	0	0	0
Netherlands Antilles	0	298	4,363	4,661
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	453	0	0	453
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	0	0
Syria	0	0	0	0
Trinidad	0	0	201	201
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	242	544	1,383	2,169
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	92	1,393	172	1,657
Other Eastern Hemisphere	3	215	78	297
Subtotal Other	2,365	4,108	6,956	13,429
<b>Other</b>				
<b>Total Imports</b>	5,866	4,943	11,475	22,284

(e) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, April 1983  
(Thousands of Barrels)

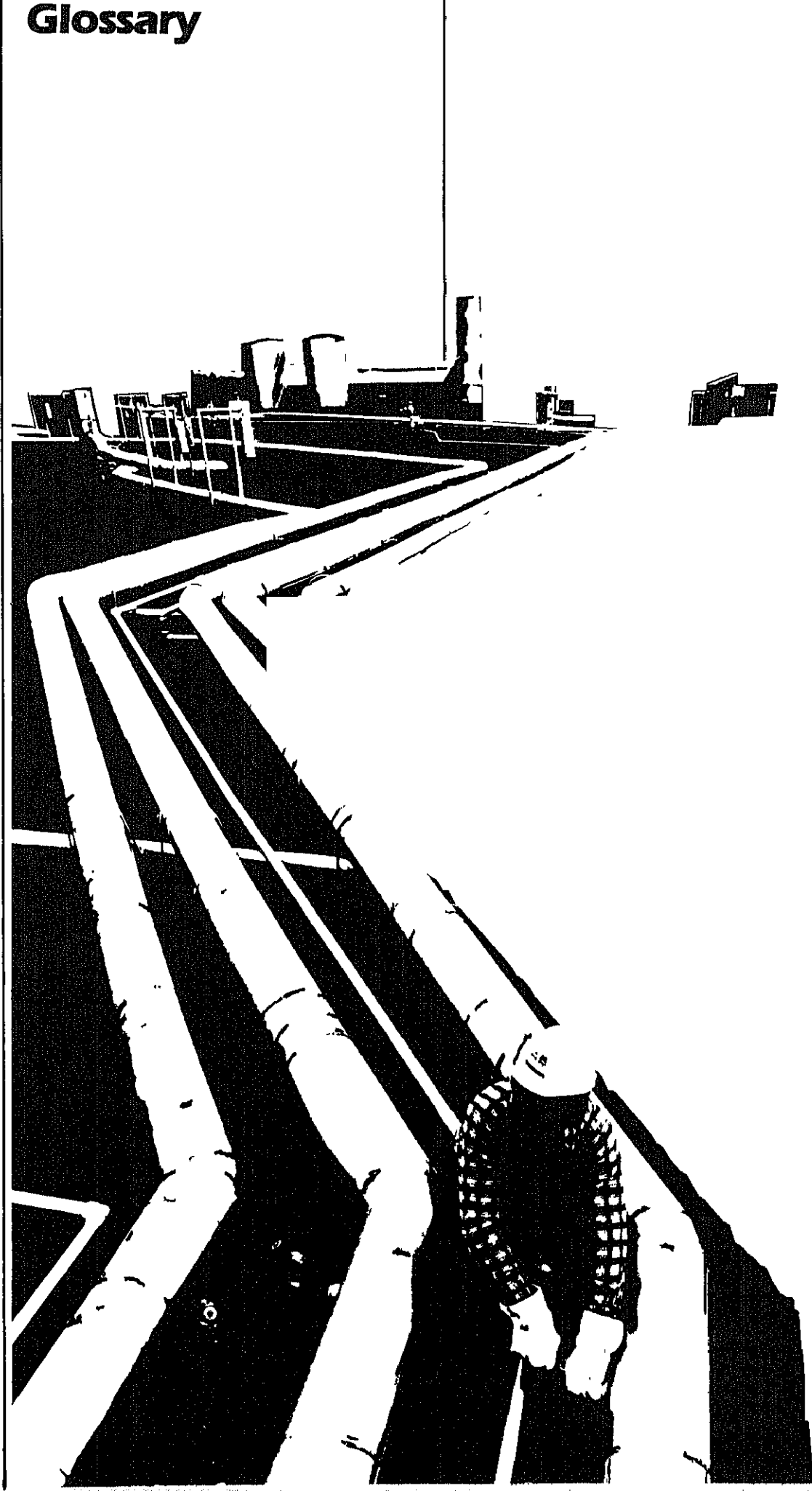
State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
<b>PAD District I</b>	5,157	3,727	10,650	19,534
Connecticut	0	207	0	207
Florida	215	322	1,230	1,768
Georgia	0	0	135	135
Maine	0	329	1,148	1,478
Maryland	170	0	200	369
Massachusetts	0	209	1,382	1,591
New Jersey	708	786	1,102	2,576
New York	3,970	1,672	3,130	8,773
North Carolina	0	0	412	412
Pennsylvania	93	221	433	748
South Carolina	0	1	362	363
Vermont	0	0	0	0
Virginia	0	0	1,116	1,116
<b>PAD District II</b>	91	636	37	763
Illinois	0	237	0	237
Indiana	44	0	0	44
Michigan	0	202	0	202
Minnesota	0	0	22	22
North Dakota	0	0	15	15
Ohio	0	197	0	197
Wisconsin	47	0	0	47
<b>PAD District III</b>	526	348	693	1,566
Louisiana	4	0	693	697
Texas	521	348	0	869
<b>PAD District IV</b>	0	0	(s)	(s)
Montana	0	0	(s)	(s)
<b>PAD District V</b>	92	232	95	420
Arizona	0	0	0	0
California	92	0	0	92
Hawaii	(s)	232	95	328
<b>All PAD Districts</b>	5,866	4,943	11,475	22,284

(s) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation

# Glossary





# Definitions of Petroleum Products and Other Terms

**Alcohol.** The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group;  $\text{CH}-(\text{CH})_n-\text{OH}$ . *Alcohol* includes methanol and ethanol.

**Alkylation.** A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

**API Gravity.** An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr } 60\text{F}/60\text{F}} - 131.5$$

**Aromatics.** Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

**Asphalt.** A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

**ASTM.** The acronym for the American Society for Testing and Materials.

**Aviation Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

**Aviation Gasoline, Finished.** All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

**Barrels per Calendar Day.** The maximum number of barrels of input that can be processed in a twenty-four hour period after making allowances for the following limitations: downstream limitations, environmental constraints, types and grades of inputs, planned and unplanned downtime, and types and grades of products.

**Barrels Per Stream Day.** The amount a unit can process running at full capacity under optimal crude and product slate conditions.

**Bi-metallic.** A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g., platinum, rhodium).

**Butane.** A normally gaseous paraffinic hydrocarbon,  $\text{C}_4\text{H}_{10}$ . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

**Isobutane.** A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

**Normal Butane.** A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. This classification includes mixtures of gases that contain 80 percent or more normal butane.

**Other Butanes.** All butanes not included as normal butane or isobutane.

**Butane-Propane Mixtures.** Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane mixtures. They are extracted from natural gas and refinery gas streams.

**Butylene.** An olefinic hydrocarbon,  $\text{C}_4\text{H}_8$ , recovered from refinery processes.

**Catalytic Cracking.** The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

**Catalytic Hydrocracking.** A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

**Catalytic Hydrotreating.** A process for treating petroleum fractions (e.g., distillate fuel oil and residual fuel oil) and unfinished oils (e.g., naphthas, reformer feeds and heavy gas oil) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

**Catalytic Reforming.** The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane

gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

**Conventional.** A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g., platinum, alumina).

**Coal.** A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite coal which conform to ASTM Specification D388.

**Crude Distillation.** The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

**Crude Oil (Including Lease Condensate).** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gas is also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

**Domestic.** Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331.

**Foreign.** Crude oil produced outside the United States.

**Delayed Coking.** A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuel.

**No. 1 Fuel Oil.** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 420 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

**No. 2 Fuel Oil.** A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM

Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

**No. 1 and No. 2 Diesel Fuel Oils.** Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

**No. 1-D.** A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under wide variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specifications D975.

**No. 2-D.** A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

**No. 4 Fuel Oil.** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

**Eastern Hemisphere.** That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

**Electric Energy (Purchased).** Electricity purchased for refinery operations that is not produced within the refinery complex.

**Ethane.** A normally gaseous paraffinic compound (C<sub>2</sub>H<sub>6</sub>) extracted from natural gas and refinery gas streams. "Ethane" includes any products containing 90 percent liquid volume or more ethane.

**Ethane-Propane Mixtures.** Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted from natural gas and refinery gas streams.

**Ethylene.** An olefinic hydrocarbon, (C<sub>2</sub>H<sub>4</sub>) recovered from refinery or petrochemical processes.

**Field Production.** Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

**Fluid Coking.** A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

**Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

**Gas Oil.** A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

**Imported Crude Oil Burned as Fuel.** The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. *Imported crude oil burned as fuel* includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

**Isomerization.** A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alkylation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

**Kerosene.** A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D-3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

**Kerosene-Type Jet Fuel.** A quality kerosene product with an average gravity of 40.7 degrees API, a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specifications MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; It is used primarily for commercial turbojet and turbo-prop aircraft engines.

**Lease Condensate.** A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

**Liquefied Petroleum Gases (LPG).** Propane, propylene, butanes, butylene, butane-propane mixtures, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

**Liquefied Refinery Gases (LRG).** Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as a petrochemical feedstock and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks or other uses.

**Lubricating Oils.** A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. *Lubricants* includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include Bright Stock, Neutral, and Other.

**Bright Stock.** A refined, high viscosity lubricating oil base stock that is usually made from residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

**Neutral.** A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

**Other.** A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

**Middle Distillates.** A general classification that includes distillate fuel oil and kerosene.

**Miscellaneous Products.** Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, specialty oils and medicinal oils.

**Motor Gasoline Blending Components.** Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

**Motor Gasoline, Finished.** A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122 degrees to 158 degrees F. at the 10-percent point to 365 degrees to 374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. *Motor gasoline* includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

**Finished Leaded Gasoline.** Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

**Finished Unleaded Gasoline.** Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

**Gasohol.** A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

**Motor Gasoline, Total.** Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

**Naphtha-Type Jet Fuel.** A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

**Natural Gas.** A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

**Natural Gas Field Facility.** A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

**Natural Gas Plant Liquids.** Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, butane-propane mix, isopentane, natural gasoline, plant condensate, unfractionated stream, and other products from natural gas processing plants (i.e., products meeting the standards of finished petroleum products produced at natural gas processing plants, such as finished

motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gasoline and Isopentane.** A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, C<sub>5</sub>H<sub>12</sub>, obtained by fractionation of natural gasoline or isomerization of normal pentane.

**OPEC.** The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

**Operable Distillation Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within days.

**Other Hydrocarbons.** Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

**Petrochemical Feedstock Use.** Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are *Naphtha-less than 400 degrees F. end-point* and *Other oils-over 400 degrees F. end-point*.

**Naphtha-Less Than 400 Degrees F. End-Point.** A naphtha with an end point of less than 400 degrees F. that is reported as used as a petrochemical feedstock.

**Other Oils-Over 400 Degrees F. End-Point.** Oils with an end point over 400 degrees F. that is reported as used as a petrochemical feedstock.

**Petroleum Coke.** A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is five barrels of 42 U.S. gallons per short ton.

**Marketable Coke.** Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This *green* coke may be sold or further purified by calcining.

**Catalyst Coke.** In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

**Petroleum Products.** Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unfractionated stream, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Refinery.** An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

**Plant Condensate.** One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

**Primary Stocks.** Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. *Primary Stocks* excludes stocks of foreign origin that are held in bonded warehouse storage.

**Propane.** A normally gaseous paraffinic compound, C<sub>3</sub>H<sub>8</sub>, which includes all products covered by NGPA Specification for commercial and HD-5 propane and ASTM Specification D1835. It is used primarily as a fuel and as a petrochemical feedstock.

**Propylene.** An olefinic hydrocarbon, C<sub>3</sub>H<sub>6</sub>, recovered from refinery or petrochemical processes.

**Residual Fuel Oil.** The topped crude of refinery operation which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Includes imported crude oil to be burned as a fuel.

**Road Oil.** Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in

six grades from 0, the most liquid, to 5, the most viscous.

**Special Naphthas.** All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. *Special naphthas* includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

**Steam (Purchased).** Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

**Still Gas (Refinery Gas).** Any form or mixture of gas produced in refineries by distillation cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

**Petrochemical Feedstock Use.** Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc., are considered petrochemical products; therefore, only their feed-stock equivalents are included.

**Fuel Use.** All other still gas.

**Strategic Petroleum Reserve (SPR).** Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

**Thermal Cracking.** A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

**Unfinished Oils.** Includes all oils requiring further processing, except those requiring only mechanical blending.

**Unfractionated Streams.** Mixtures of unsegregated natural gas liquid components excluding those included in plant condensate. This product is extracted from natural gas.

**Vacuum Distillation.** Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique, with its relatively low temperatures, prevents cracking or decomposition of the charge stock.

**Visbreaking.** A thermal cracking process in which heavy vacuum-still bottoms produced on the primary

distillation unit are cracked to increase production of distillate products.

**Wax.** A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-ozing. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-gallon barrel.

**Microcrystalline Wax.** Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D-1321)-60 maximum.  
Viscosity at 210 degrees F. in Saybolt Universal Sec-

onds (SUS) (D-88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D-721)-5 percent minimum.

**Crystalline-Fully Refined Wax.** A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D-88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D-721)-0.5 percent maximum. Other + 20 color, Saybolt minimum.

**Crystalline-Other Wax.** A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D-88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D-721)-0.51 percent minimum to 15 percent maximum.

**Western Hemisphere.** That half of the earth that includes North and South America and the surrounding waters.

# Bureau of Mines Petroleum Refining Districts and PAD Districts

*The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:*

## PAD District I

**East Coast:** District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

**Appalachian #1:** The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

## PAD District II

**Appalachian #2:** The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

**Indiana—Illinois—Kentucky:** The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

**Minnesota—Wisconsin—North and South Dakota:** The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

**Oklahoma—Kansas—Missouri:** The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

## PAD District III

**Texas Inland:** The State of Texas except the Texas Gulf Coast District.

**Texas Gulf Coast:** The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

**Louisiana Gulf Coast:** The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

**North Louisiana—Arkansas:** The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

**New Mexico:** The State of New Mexico.

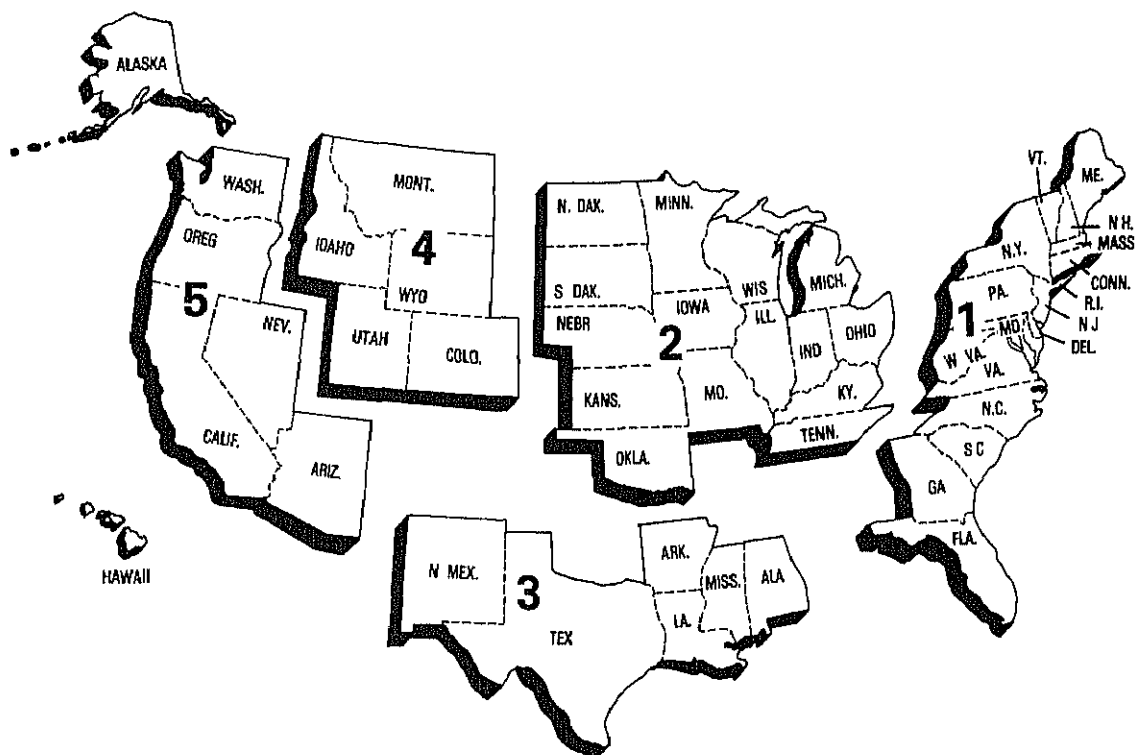
## PAD District IV

**Rocky Mountain:** The States of Montana, Idaho, Wyoming, Utah, and Colorado.

## PAD District V

**West Coast:** The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

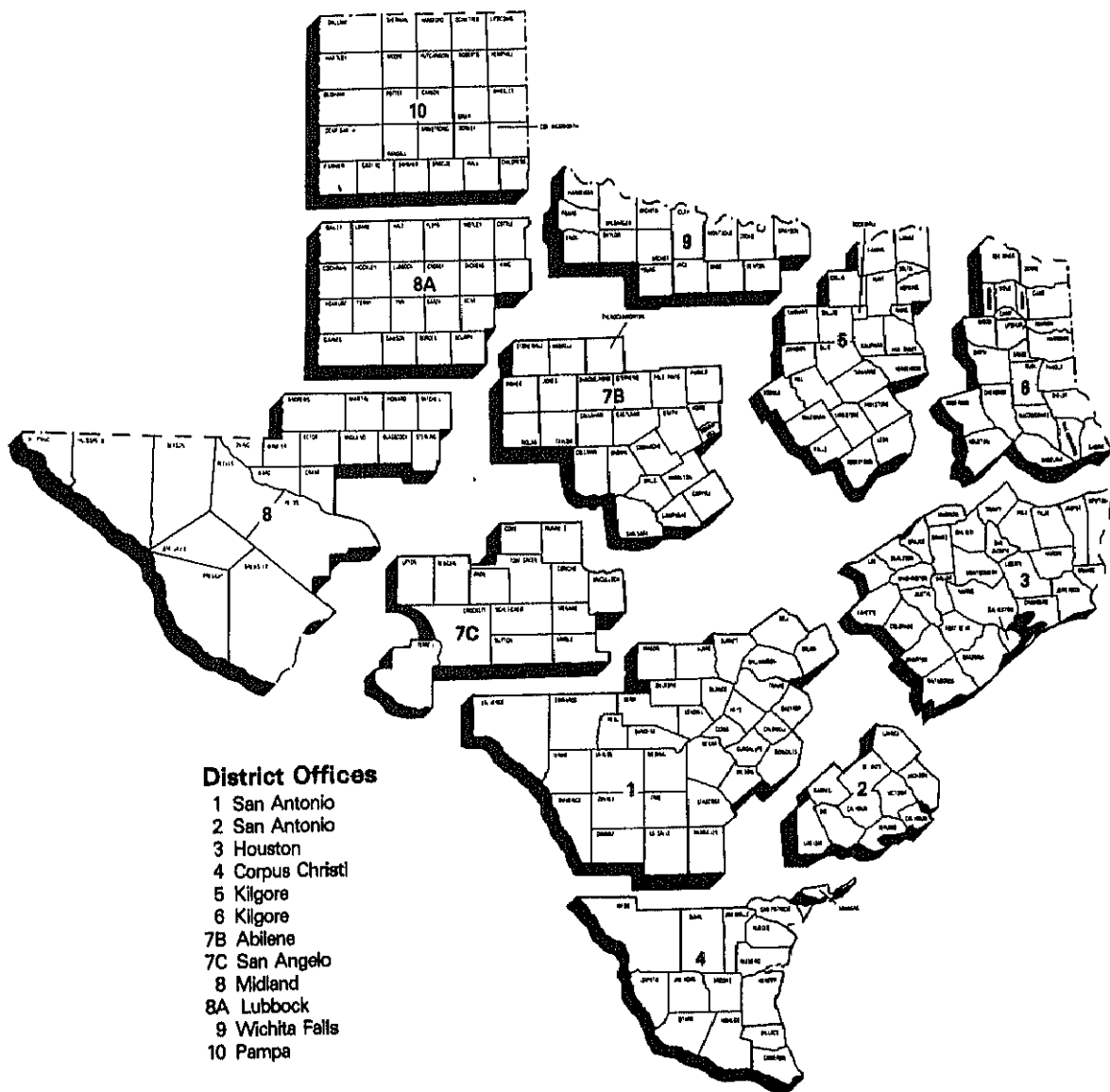
## Petroleum Administration for Defense (PAD) Districts



## Bureau of Mines Refining Districts

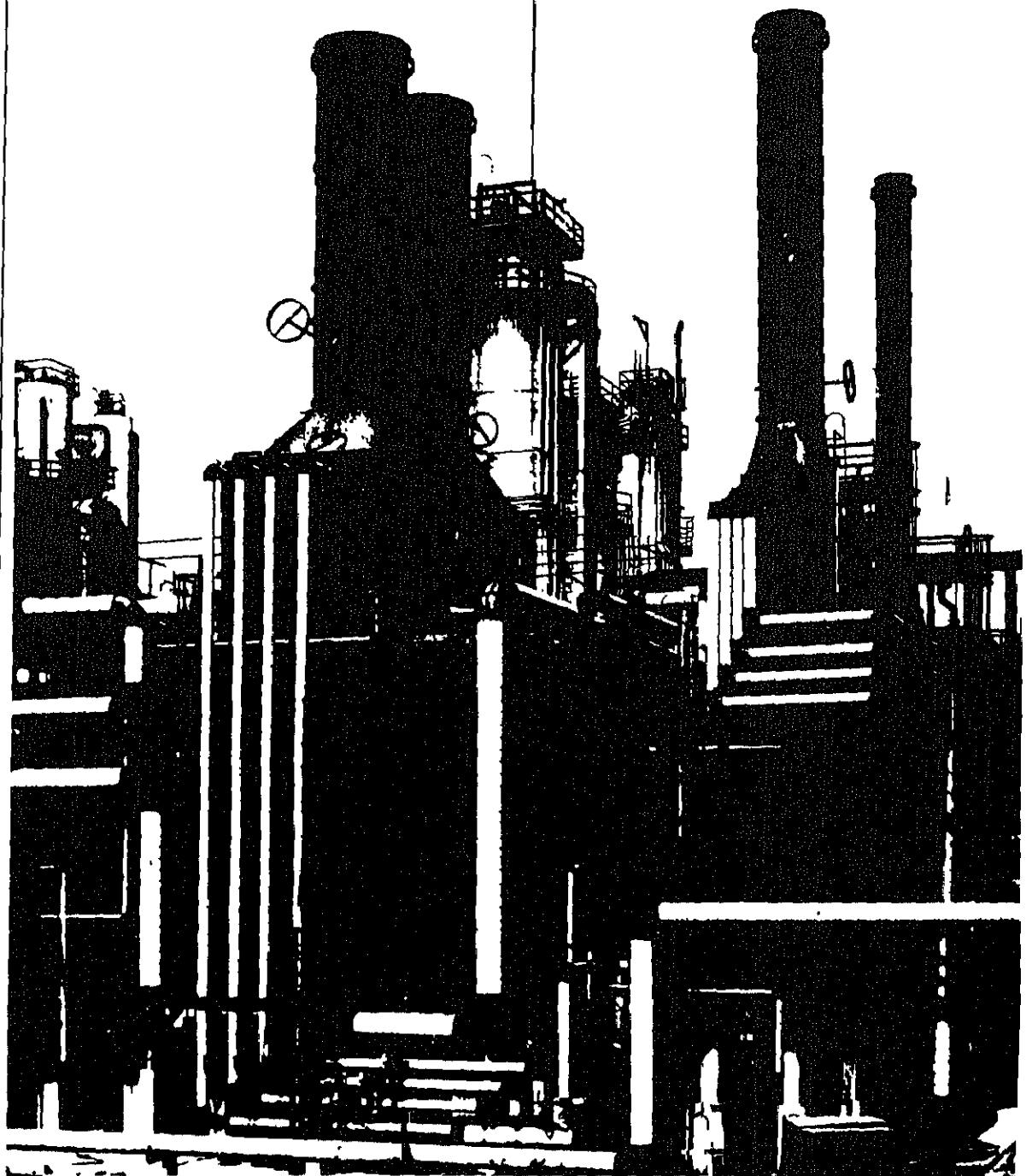


## District Map Oil and Gas Division Railroad Commission of Texas





# Explanatory Notes





## Note 1: Data Collection Methodology

### Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly*

(PSM). A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Note 1.3.

### Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

#### Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

#### Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

**EIA-800:** Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

**EIA-801:** Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

**EIA-802:** Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

**EIA-803:** Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

**EIA-804:** Based on the EIA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

**EIA-805:** Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

### Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report*.

### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

### Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month ( $M_t$ ) is divided by the amount reported by the sample of companies for the most recent month ( $M_s$ ). The result is multiplied by the amount reported by the sample of companies for the current week ( $W_s$ ). The answer,  $W_t$ , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

### Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

## Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

### Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

### Respondent Frame

**EIA-810:** All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

**EIA-811:** All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

**EIA-812:** All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

**EIA-813:** All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

**EIA-815:** All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the PSM.

**EIA-816:** All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

**EIA-817:** All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

**ERA-60:** All licensed importers and importers of record importing crude oil and petroleum products into the

United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

### Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

### Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

### Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1982, the ERA-60 survey had a response rate of 98 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

### **Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data**

#### **Background**

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases, bonded ships bunkers and military offshore use are published in the *PSM*.

#### **Import Statistics (IM-145)**

##### **Coverage**

The import statistics reflect both government and non-government imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)
3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

#### **Source of Import Information**

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

#### **Country and Area of Origin**

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

#### **Export Statistics (EM-522 and EM-594)**

##### **Coverage**

The export statistics reflect both government and non-government exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

#### **Source of Export Information**

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Customs officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

## Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

## Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

**Field Production** is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

**Refinery Production** of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. It should also be noted that refineries do not export production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons.

**Imports** of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports Into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs Import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases

(LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

**Stock Withdrawal (+) or Addition (-)** is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

**Unaccounted-for Crude Oil** is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

## Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

#### Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

**Crude Oil Losses** is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

**Refinery Inputs** of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

**Exports** of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

**Product supplied** for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts on a calculated on a PAD District basis), minus re-

finery input, minus exports. This formula ensures that total disposition equals total supply.

**Products supplied** indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

#### Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

#### Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (on April 1 and October 1), by basing the *average ranges* on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

## Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817 and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

## Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

## Note 9: Notes on Tables

**Note 9.1 Crude Oil and Petroleum Products Overview** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

**Note 9.2 Crude Oil Supply and Disposition** statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

**Note 9.3 Finished Motor Gasoline Supply and Disposition** statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

**Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition** statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

**Note 9.5 Liquefied Petroleum Gases Supply and Disposition** statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousands of barrels in Table 2.

**Note 9.6 Other Petroleum Products Supply and Disposition** statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

#### **Note 9.7 Table 1. U.S. Petroleum Balance**

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): *NGPL Imports* equals the sum of the im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): *NGPL Stock Withdrawal (+) or Addition (-)* is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): *Unfinished oils and gasoline blending components Stock Withdrawal (+) or Addition (-)* equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

- Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

- Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

- Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

- Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

- Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

- Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

- Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

- Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

- Line (29): *Refined Products Stocks Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.

- Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

- Lines (31) through (35) equal the respective products supplied in Table 2.

- Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

- Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

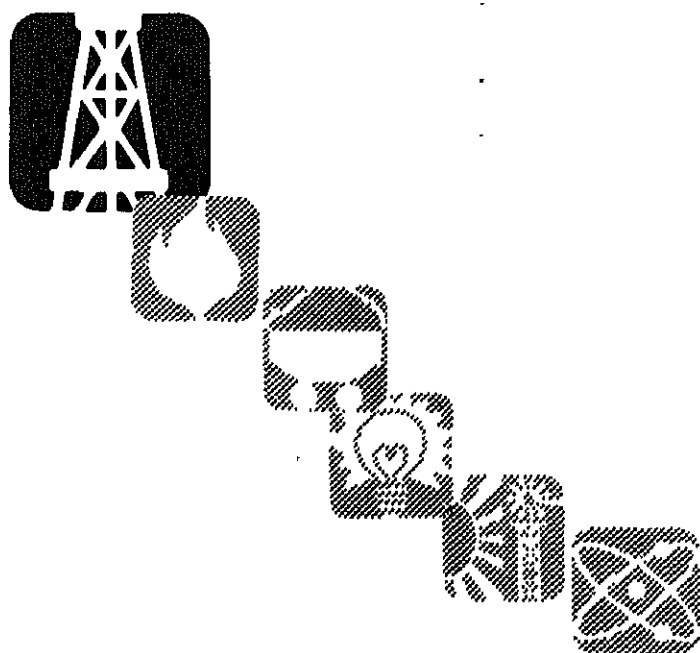
- The sum of lines (38) and (39), *stocks of Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

- Line (43): *stocks of Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.



# **Explore the Future of Petroleum Supply Information**

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**Wednesday, August 24, 1983  
8 A.M. - 3:30 P.M.  
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# Energy Information Administration

## Symposium on Petroleum Supply Information

Wednesday, August 24, 1983  
8 a.m. - 3:30 p.m.  
KEY BRIDGE MARRIOTT HOTEL  
Arlington, Virginia

### Keynote Address

#### "Energy Issues Facing the U.S.: A Policy Perspective"

Danny J. Boggs, Special Assistant  
to the President for Energy,  
Natural Resources, Environment  
and Agriculture

### Opening Remarks

J. Erich Evered,  
Administrator  
Energy Information  
Administration

### "Petroleum Supply Division Activities: Present and Future"

Frank E. Lalley, Director  
Petroleum Supply Division  
Energy Information  
Administration



## Morning Sessions

### Session 1

10:20-11:50 a.m.

#### World Economic Changes and U.S. Oil Supply

Room A

Chairman: Jimmie L. Petersen, Director,  
Office of Oil and Gas, EIA

- "Trends in Refinery Capacity and Utilization (Results of 1983 EIA Refinery Survey)"  
Elizabeth Campbell, Economist,  
Petroleum Supply Division, EIA
- "World Oil Price and Inventory Cycles"  
Dr. John L. Moore, Deputy Area Manager,  
Applied Management Sciences
- "Minimum Operating Inventories for Gasoline,  
Distillate Fuel Oil and Residual Fuel Oil"  
Richard D. Farmer, Economist,  
Petroleum Supply Division, EIA

### Session 2

10:20-11:50 a.m.

#### Availability of EIA Petroleum Supply Information: Surveys, Systems and Publications

Room B

Chairman: Dr. Barry M. Yaffe, Chief,  
Data Analysis and Support Branch, EIA

- "EIA Petroleum Supply Surveys: An Overview"  
Ronald W. O'Neill, Publications Branch,  
Petroleum Supply Division, EIA
- "Systems Improvements: The Integrated Petroleum  
Supply Data Base"  
Robert Lesko, Vice President,  
Technology and Information Systems,  
Applied Management Sciences
- "New Data and Information Services"  
John Daniels, Director,  
National Energy Information Center, EIA

# Afternoon Sessions

## Session 3

1:30-3:30 p.m.

### Current Petroleum Supply Situation and Outlook

Room A

Chairman Dr. Wray Smith, Director,  
Office of Energy Markets and End Use, EIA

- "The Current Petroleum Situation: Expectations for Fall and Winter 1983/84"  
Albert H. Linden, Jr.,  
Deputy Administrator, EIA
- "Outlook for World Crude Oil Prices"  
Calvin W. Kilgore, Acting Director,  
Short-Term Information, EIA
- "The Outlook for Transportation Fuels"  
Dr. David Green, Group Leader,  
Transportation Energy Group,  
Oak Ridge National Laboratory
- "Intermediate Term Petroleum Projections"  
Dr. John Pearson, Director,  
Longer-Term Information, EIA

## Session 4

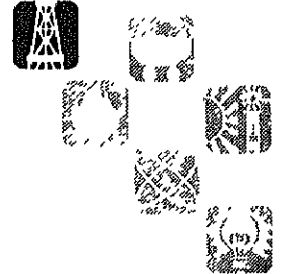
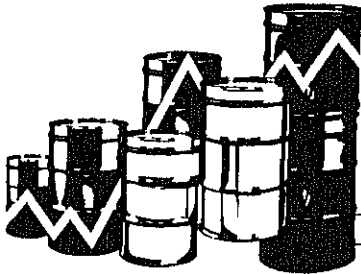
1:30-3:30 p.m.

### Petroleum Supply Data: Scope and Quality

Room B

Chairman Dr. Yvonne M. Bishop, Director,  
Office of Statistical Standards, EIA

- "Accuracy of Petroleum Supply Data."  
Dr. Nancy Kirkendall, Statistician,  
Petroleum Supply Division, EIA
- "Advances in Quality Control in PSD Data"  
Dr. Lawrence A. Thibodeau,  
Deputy Area Manager,  
Applied Management Sciences
- "Liquefied Petroleum Gas Reporting"  
Gary Oleson, Statistician,  
Petroleum Supply Division, EIA
- "Statistical Design of the Weekly Petroleum Status Report"  
Dr. Eugene Burns and Yahia Ahmed, Statisticians,  
Petroleum Supply Division, EIA



**There is no charge for attendance. However, because of space limitations, reservations are required and requests will be honored on an "as received" basis.**

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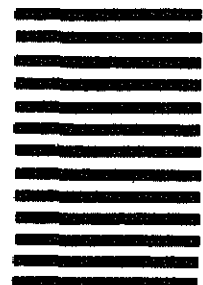


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